

Planting the Seeds: Envisioning an Academic Pathway for Indigenous Students
in Rural Northern Ontario

by

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Abstract

My research examined how Indigenous students chose their post-secondary educational academic pathway, specifically the timing, type and amount information Indigenous students had prior to being enrolled in undergraduate and graduate programs at Laurentian University, Sudbury, Ontario. This study utilized an Indigenous research methodology and quantitative method with a few qualitative questions using REDCap online survey. The research found that while current Laurentian Indigenous students had multiple pathways prior to enrollment at the university level, the results also found that earlier outreach might one of the strategies to closing the educational attainment gap between Indigenous and non-Indigenous students at the post-secondary level. The study also revealed a need for Laurentian University to form close relationships with Indigenous communities in Northern Ontario to allow potential future students a way of envisioning the benefits and opportunities of their education pathway.

Keywords: *Quantitative Indigenous Research Methodology, Indigenous Academic Education, Early Outreach, Northern Ontario, Laurentian University, Envisioning, Indigenous Student Success, Community, Relationships, Indigenous Educational Pathways*

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CHAPTER 1

Introduction

Why is a university degree important? In addition to personal development and intellectual curiosity, economically speaking, university graduates earn over 70 percent more in their lifetime than those who complete only high school (The Association of Universities and Colleges Canada (AUCC), 2011, p. 21; Berger 2009, p. 7; DeClou 2014, p. 18). Beyond the outcomes of employment and earnings, a university degree also offers a variety of non-monetary benefits. A person who graduates enjoys higher quality jobs, better health outcomes, as well as their children benefit from their educational success (AUCC, 2011, p. 39). Graduates are also more influential in the community, and are a source of wider innovation and economic growth. Studying at a degree level also develops transferable skills such as time management, problem solving, independent thought, report writing, team building, leadership skills and effective communication (Baum & Ma, 2007, p.2). For Indigenous¹ students in Northern Ontario a university degree means that they can benefit from all of the above-mentioned advantages, but more importantly, they can also influence their own community as well as break historic stereotypes about Indigenous Peoples in Canada. According to Pigeon, Archibald and Hawkey (2014), the “benefits of university-trained Indigenous peoples extends beyond financial outcomes. Higher education is valued for capacity building within Aboriginal² nations moving communities towards their goals of self-government and self-determination as well as

¹ The term Indigenous is a collective noun for Aboriginal, First Nations, Métis and Inuit and growing in popularity in Canada. <https://www.ictinc.ca/blog/indigenous-peoples-terminology-guidelines-for-usage>. Throughout this thesis these terms will be used interchangeably, but for the most part I will be referring to the term Indigenous.

² The term ‘Aboriginal’ moved into popularity as the correct collective noun for First Nations, Inuit and Métis and was widely adopted by government and many national groups. This distinction was made legal in 1982 when the *Constitution Act* came into being. The federal government has now moved to embrace the term ‘Indigenous’ and all of its legal ramifications. <https://www.ictinc.ca/blog/indigenous-or-aboriginal-which-is-correct>

empowerment of self and community, and decolonization” (p. 340). Pidgeon, Archibald and Hawkey (2014) also posit that “the current low rate of completion in Aboriginal populations influences the overall state of Aboriginal societies’ health, wealth, and potential to overcome their current third world status in a first world country” (p. 340). According to the Census Canada’s National Household Survey (2011) only 9.8% of Aboriginal people in Canada have a university degree compared to 26.5 % for the non-Aboriginal population (p.4-5). The 2016 Canadian Census data shows that Aboriginal people with a university degree is currently 10.9%, up 1.1% from 2011, but non-Aboriginal also increased from 26.5% to 28.5%, up 2% over the same period (Statistics Canada, 2016). Therefore, the educational attainment of Aboriginal people in Canada is increasing, but so is the educational gap between Aboriginal and non-Aboriginal people having a university degree in Canada. Despite numerous efforts to address the gap between Aboriginal and non-Aboriginal students in Canada, there is more work to be done and listening to the voices of current student about their pathways³ to university are valuable because “higher education is a critical tool in addressing these worrying outcomes” (Economics, TD, 2013, p. 1). Further, “educational disparity do have repercussions to the individual, their families, and communities as lower educational attainment negatively impacts one’s socioeconomic status, health and overall well-being” (Pidgeon, 2016, p.77). In essence, universities, according to Pidgeon (2016), need to move “away from the tokenized checklist response that merely tolerates Indigenous knowledge(s) to one where Indigenous knowledge(s) are embraced as part of the institutional fabric” and that we need to do this because Indigenizing

³ When used in the singular, **learning pathway** refers to the specific courses, academic programs, and learning experiences that individual students complete as they progress in their education toward graduation. In its plural form, the term *learning pathways*—or any of its common synonyms, such as *multiple pathways* or *personalized pathways*—typically refers to the various courses, programs, and learning opportunities offered by schools, community organizations, or local businesses that allow students to earn academic credit and satisfy graduation requirements. <https://www.edglossary.org/learning-pathway/>

the institution provides the lens for Indigenous students to envision seeing themselves within the educational experiences for the next seven generations (p. 78-79). To understand the PSE⁴ pathway for Indigenous students is critical to lessen the risk and improve outcomes,

These individuals risk being shut out from the various economic and social benefits of higher education. In particular, students from low income, rural, and northern, Aboriginal and first generation backgrounds. (Ontario Undergraduate Student Alliance (OUSA), 2011, p. 51)

Indigenous PSE is important because it provides insight into successful pathways and challenges of Northern Ontario Indigenous students. “Historically, ‘success’ for Aboriginal peoples in postsecondary education was linked to issues of assimilation” (Gallop & Bastien, 2016, p. 206). My desire is that PSE institutions will gain valuable insight and possible strategies to be able to increase the number of Indigenous students entering and graduating university. The monetary and non-monetary benefits of these successful Indigenous university students reach far beyond their individual success and can have a lasting positive impact on their communities and their members in areas of higher education, self-government, self-determination, health, and economic benefits of employment and other measures that improve standards of living.

Situating the need for this research topic

⁴ **PSE** refers to Post-Secondary Education. PSE can refer to University, College, Trades, or Military services, but for the purpose of this study PSE refers to only University and College Education.

Government incentives along with educational institutions' initiatives and strategies to attract and graduate more Indigenous students to post-secondary studies are all steps in the right direction in terms of accessibility and employability. However, specialized programs and strategies are not doing enough to close the gap that exists between Indigenous and non-Indigenous post-secondary attainment in Canada. Government and institutions need to proactively implement new strategies regarding Indigenous PSE graduation rates because "it is not a one-way street between Aboriginal post-secondary and those in primary and secondary education. Instead the relationship is a positive feedback loop" (TD Economics, Special Report, 2013, p. 5). Money alone "will not bring improvements" (Richards, 2014 p. 408). Further, "Colleges and universities have a very important role in facilitating their relationships throughout the entire cycle, PSE leaders do not enter the equation the moment the high school graduates walk through the door" (p. 5).

The purpose of my study was to investigate an alternative long-term solution to the low educational attainment rates for Indigenous students in Northern Ontario. This research examined ways to find out if a long-term plan of providing outreach about post-secondary options at an earlier age for Indigenous Northern rural students would enable them to increase their chances of graduating at the post-secondary level. This premise is based on the following:

First, the government programs and initiatives that are aimed at improving high school graduation rates regarding Indigenous populations are mostly geared towards larger urban Indigenous populations and are not conducive to preparing rural or on-reserve Indigenous students for PSE. For example, a government program called "Pathways to Education" that was established in 2001 mainly focuses on large urban centres in places like Toronto, Winnipeg, Montreal and Vancouver rather than rural Indigenous PSE initiatives. Rural graduation and

employment rates among Indigenous populations are low. Unemployment for First Nations⁵ on reserves for 2011 was 25.2% and 15.3% for First Nation off reserves compared to 7.5% for non-Indigenous (National Collaborative Centre for Aboriginal Health, 2017, p. 3). In two separate reports prepared for the Higher Education Quality Council of Ontario, the first was from Malatest & Associates (2010) reported on numerous promising practices that were identified for PSE institutions for increasing Indigenous students' access to and participation in postsecondary education. According to Bruce, Marli and Raham (2012) the most important of these are:

- an Aboriginal student services centre, which provides not only direct services but functions as a cultural centre with an Elder in residence, offering a place of belonging;
- a holistic approach to student support, including childcare, housing assistance, counselling, career guidance, and employment services;
- Aboriginal curriculum content delivered by Aboriginal instructors;
- tutors, academic skills courses, and study skills sessions for struggling students;
- well-established peer mentoring programs;
- distance education programs and learning modules that reduce the time on campus, allowing for more learning in the home community;
- networks with local employers to facilitate employment placements related to programs of study;
- liaison with local bands to provide role models and other support for Aboriginal students and recruitment opportunities; and

⁵ **First Nation:** A term that came into common usage in the 1970s to replace the word "Indian," which some people found offensive. Although the term First Nation is widely used, no legal definition of it exists. Among its uses, the term "First Nations peoples" refers to the Indian peoples in Canada, both Status and non-Status. Some Indian peoples have also adopted the term "First Nation" to replace the word "band" in the name of their community. <http://www.aadnc-aandc.gc.ca/eng/1100100014642/1100100014643>

- Aboriginal access programs that provide the basic skills required to gain access to PSE and optimize success in academic programs (p. 34).

While the above list are all positive incentives and strategies, they have not addressed early dissemination; particularly timing, type, and amount of information students need to help them make informed choices. These incentives address students who have already successfully entered university. But none of these PSE strategies identified by Bruce, et al. (2012) address the need for earlier outreach. The second and more recent report by Deller, Kaufman, & Tamburri (2019) re-explored the educational gap and found that incentives and programs implemented by the Ontario provincial government had done little to achieve equitable access for those students who have been traditionally excluded from postsecondary and labour market opportunities (p.3), including Indigenous students.

Urban programs and initiatives that are designed by the federal government are distant and removed from the rural context. Further, there is a need for greater collaborative relationships between rural First Nation communities and local PSE institutions to ensure that Indigenous students have access to all options available to them. Finally, for rural Indigenous student's early exposure to post-secondary institutions might help them to increase their educational possibilities. The more information students have about their possible future educational endeavours and the earlier they receive it, the more likely they are to pursue a post-secondary education path (Finnie, Childs & Wismer, 2011, p. 28). This access to information, according to Finnie (2014), can be defined as a 'culture', which is an understanding of an appreciation for the value and broad benefits of PSE (p.61).

Research Objectives

My research examined how Indigenous students enrolled in undergraduate and graduate programs at Laurentian University chose their post-secondary academic pathway. In particular:

- a. looking at when they started at Laurentian University,
- b. at what age/s they received information about post-secondary options,
- c. who they received the information from or not, and
- d. lastly, if indeed those early messages were the impetus for motivating them to attend university.

I was also interested in finding out whether coming from a rural, urban and/or on-reserve community had any bearing on their choices to attend university. I also assessed strengths and or barriers that might have impacted their decisions.

Many post-secondary institutions begin recruitment of possible students as early as grade six. However, most of these institutional recruitment strategies target large urban non-Indigenous populations where they compete vigorously with other high-quality post-secondary institutions within the same geographic region. My research objectives sought to understand ways to strengthen the rural community/liaison capacity to inform Indigenous students about opportunities available to them. I sincerely hope that my research enables more students from Indigenous communities in Northern Ontario to pursue and successfully complete a degree. In addition, all Indigenous students regardless of socio-economic status, geography, family education background should be able to access all the pertinent information available early enough, about PSE, in order for them to make a fully informed decision about their future goals and aspirations.

With respect to “insider-outsider” research claims (Smith, 2012, p. 138), I understand that I may be perceived by the Indigenous community as an outsider. As a non-Indigenous researcher doing Indigenous research, I am willing to become uncomfortable in those challenges because as Regan (2005) states “we need to be uncomfortable, disquieted and unsettled. It is time for Canadians as a society to shake us from the complacency that comes from dominant culture power and privilege” (p.9). I am that ally, the *wiigaabwitwaad* that is willing to “*stand with someone*’ to stand up for inequality and injustices. Being an *ally* also means that I am going to be perceived as an outsider. Although I have worked as an educator within the community where I carried out my research, I also recognize my privilege and aim to ensure that my research approach remains respectful of Indigenous methods. I connect strongly to the words of Marie Batiste (2013) “what I think is important is my own path towards understanding the collective struggles of Indigenous people framed within a patriarchal, bureaucratic enterprise of government, with education used as the manipulative agent of various intended outcomes, some well-intended, some not, but all strategic” (p.17).

Research Aims

First, I must ask the critical question: Does the timing, type, and amount of post-secondary educational information affect the pathway of Indigenous students from rural Northern Ontario? I believe it does. Secondly, it is my hope that the information gathered from this research can assist institutions toward building educational pathway strategies that will enable students, teachers, and Indigenous communities to actively engage students towards post-secondary studies. The following literature review assists to outline key issues relevant to PSE and Indigenous students.

CHAPTER 2

Literature Review and Critical Analysis

There is limited literature on the timing, type, and amount of PSE information received by Indigenous rural students in Northern Ontario. Indigenous education literature has historically focused primarily on the comparison to non-Indigenous populations. Moreover, the literature often takes on a negative or deficit approach regarding PSE educational attainment and outcomes. The literature that does exist, on the topic of dissemination of information and timing with regards to aspirations and goal setting for PSE, looks at more affluent, middle-class, two-parent, university educated non-Indigenous and urban students from countries including Australia, Canada, the United States, and the United Kingdom.

First, the literature in this chapter comprises of non-Indigenous educational models and theories that identify stages and choices that students pursue in order to make initial decisions about PSE. The literature review suggests that students make better and more informed choices when presented with information starting in elementary school, before entering secondary school (Cabrera, Burkum, La Nasa, and Bibo, 2005; Cremonini, Westerheijden & Enders, 2008). Second, according to the literature, lack of information about PSE or incorrect timing and type of information suggest that students may make choices based on incorrect information and or assumptions (Finnie, 2014; College Student Alliance, 2011; Cremonini, Westerheijden & Enders, 2008; Gale et al., 2010). In examining current research literature regarding the timing, type and amount of information that Indigenous students receive regarding PSE, there appears to be a lacuna where literature is absent or silent. The lone study by Nardozi (2011) that is mentioned below studied the aspirations of Indigenous community members regarding PSE, but did not look at the timing, type, or amount of information. Finally, the literature that exist regarding Indigenous education in Canada is framed negatively with regards to attainment, outcomes and barriers.

The literature suggests that students undergo different stages of decision-making when it comes to deciding on PSE (Cabrera et al. 2005; Cremonini, Westerheijden & Enders 2008; Hossler & Gallagher 1987; Lent, Brown & Hackett, 1994; Pin & Rudnicki 2011). Hossler and Gallagher posit a three-stage model of decision making that includes a) predisposition, b) search and c) choice (1987, p. 209). Another model, known as the ‘Combined Student Choice Model’ by Cremonini et al., (2007) identifies preference, exclusion and evaluation as themes, where prospective students begin to form concrete plans concerning PSE. Also, at this early stage students begin to gain economic information, and understand choices based on institutional characteristics (Cremonini et al., 2007). Hossler & Gallagher’s (1987) model further found that “students move towards an increased understanding of their educational options as they seek a post-secondary educational experience” (p.377).

The PSE three stage process begins as early as the seventh grade and ends when the high school graduate enrolls at an institution of higher education” (Cabrera et al., 2005; Cremonini, Westerheijden & Enders, 2007). Additionally, Cabrera et al., (2005) research found that a student’s final stage of ‘choice’ in grade 11 and 12 depends on four significant outcomes and that these outcomes should be included as a predisposition stage for grades 7-9, as grade 8 is considered a critical transition year between the elementary and secondary school system.

These four “choice” outcomes are:

1. Awareness of PSE expenses and financial aid,
2. Awareness in institutional attributes and admission standards,
3. Attaining scholastic aptitude and attitudes and
4. Perceived support from family and friends (p. 6)

Other literature also suggests that in-depth information should be disseminated to the students at a much earlier age (Finnie, 2014; College Student Alliance, 2011; Cremonini, Westerheijden & Enders, 2008; Gale et al. 2010). Students who receive information too late are more likely to overlook all three stages according to the National Post-Secondary Education Cooperative (NPEC) by MacAllum, Glover, Queen, and Riggs (2007), thereby increasing the risk of not succeeding at gaining entry into PSE (Cremonini, Westerheijden & Enders, 2008).

Unfortunately, many Indigenous students are not learning information early enough about choices for PSE. For example, most if not all of the literature on Indigenous PSE points to the need for increasing the post-secondary attainment rates for Indigenous Peoples in Canada in order to create an equitable and prosperous society (Giroux, 2012; OUSA, 2011; Malatest & Associate, 2010; Parriag, Chaulk, Wright, MacDonald, and Cormier, 2010., 2010; Preston 2008; Spence, White & Maxim, 2007). The lack of PSE attainment also means that Indigenous students are less likely to contribute to a “knowledge economy” (Finnie, 2014; OUSA, 2011; Parriag et al., 2010). Finnie (2014) argues that a knowledge economy is a vital outcome of PSE.

Ensuring access to post-secondary education (PSE) for all those with the desire to participate and the talent to do so, without regard to family background, is of fundamental importance to every nation’s future economic prosperity, to the broader development of its population, and to the equality of opportunity among all its citizens. (p.59)

Finnie (2014) further states that Canadian students need to have a ‘culture’ of PSE where

students know two things: that the benefits are greater than the costs and that the social benefits are also greater than the social costs (p. 60). This notion is further endorsed by Cremonini et al. (2008) who state that “the information presented in advertisements should be tailored to its cultural audience, if it is to be effective (p.381). Also, Gale, Sellar, Parker, Hattam, Comber, Tranter, & Bills (2010) highlight the importance of building possibilities for young people from low socio-economic status backgrounds, where family and school expectations do not typically include higher education aspirations (p. 51). Although their study was carried out in the United Kingdom targeting students between the ages of 13 to 19, it also supports my hypothesis which is that some groups, in this case many Indigenous students, are missing out on finding all the possible choices and information needed for a successful PSE pathway.

Family income and lack of parental support is also noted as a barrier for a successful PSE process. However, Finnie (2014) found that if a student is prepared early for PSE, they could overcome financial barriers. “It now appears that if a child is taught to value PSE, is prepared for PSE (academically and otherwise), and ultimately wishes to attend PSE, there is a high probability that the child will participate in PSE – and cost will not stand in the way” (p. 61). Not enough studies look at the importance of early dissemination of information related to educational goals and aspiration of adolescents regarding PSE and attainment. Even fewer studies exist that specifically look at the information that Indigenous students receive about PSE, especially those living on reserves, in Northern Ontario. I believe that if Indigenous students receive information early with regards to setting future educational goals that there is an increased chance that they might follow their career aspirations and path into PSE. This is further emphasized by Nardozi (2011), who looked at perceptions of PSE in Northern Ontario Indigenous communities. Nardozi found “there was a strong desire for the community members

to attend PSE because PSE was seen as an essential tool to improve the community conditions and life prospects of individuals within it” (p. 1). This is exciting news, in that it reinforces my research aims, that there is a strong desire for Indigenous communities to send their children to PSE. While their study did not look at timing or type of information that community members were receiving in regards to PSE aspirations and goal setting, this also highlights a gap that can be further investigated.

Some studies have suggested that young adolescents have already made the decision to attend post-secondary somewhere between the ages of 10 and 15, (Cheung 2007; Cooper & Liou 2007; College Student Alliance, 2011; Finnie, Childs & Wismer 2010, Gale et al., 2010; Holmes 2006; McAllum et al. 2007; OUSA 2011), Some studies have also looked at the type of information that students, at these ages, are accessing. These being:

- a) High stakes⁶ information versus functional⁷ information (Cooper & Liou 2007; Usher, 2005),
- b) Informal and formal information gathering (MacAllum et al., 2007; Usher, 2005)
- c) Availability, accessibility and achievement information (Gale et al., 2010).

However, there is not much about what type of information students are being presented with and from whom they are receiving information from regarding PSE. Usher (2005) investigated the “quality of information available to Canadian students and whether or not that information

⁶ **High stakes information** as defined by Cooper and Liou (2007) refers to the information that adults in schools can choose to share with students. High stakes information leads students to understand school culture, policies and practices in ways in which they can access, embrace and develop a strong academic self-identity. (p. 44)

⁷ **Functional information** refers to institutional norms and expectations like course offerings and graduation requirements.

might affect rational decision making in such a way as to be called a ‘barrier’ to education in its own right” (p.4). The results of the study are of great interest in a general sense because Usher (2005) concluded that given limited and incorrect information, many Canadians and those from low income backgrounds in particular – are making what they perceive to be rational choices which implies that they do not view university education as being a good investment (p.4). This is of particular importance to my research because students from Indigenous communities in Northern Ontario are more likely to come from low socio-economic status (Preston, 2008; Spence, White & Maxim, 2007).

With regards to Indigenous students, there is little research on the topic of early educational information and a linkage to increased PSE for students from rural First Nation reserves in Northern Ontario. As highlighted earlier, this is a gap I wish to fill. There is however, a lot of Canadian literature regarding the barriers that Indigenous students encounter such as:

- a) The education gap that exists between Aboriginal and non-Aboriginal post-secondary attainment (Auditor General Report, 2011; Cheung, 2007; Drummond, 2013; Frenette, 2007; Giroux, 2012; Holmes, 2006; Parriag, 2010; Pin & Rudnicki, 2011),
- b) Historical trauma (Giroux, 2012; Finnie, Childs & Wismer, 2010; Parriag, 2010),
- c) Low socio-economic status (OUSA, 2011; Preston 2008),
- d) Unemployment, poverty, geographic isolation (Nardozi, 2011),
- e) Rapid growth rate (Parriag, 2010), and
- f) Underrepresentation in the labour market (Canadian Council on Learning, 2009; Drummond, 2013; Parriag, 2010).

These articles suggest that many authors are attempting to highlight key issues about what the barriers are with respect to Indigenous PSE, but I found that there is very little focus on solutions, strategies or models centered on early outreach approaches. Some literature does address the barriers that Indigenous students encounter with regards to PSE, but have only looked at either monetary solutions (Drummond, 2013; Looker, 2002) or government initiatives in large urban centres (Holmes, 2007). For me, this does not address the important issues regarding the type of information that rural Indigenous students receive, when they receive this information, who they receive this information from and whether or not all Indigenous students are privy to the same information regarding PSE that non-Indigenous students receive.

Although some literature regarding educational outcomes for Indigenous students looked at parental education status level as an indicator of the student's accessibility to PSE (Finnie, Childs & Wismer, 2010; Frenette, 2007), this too in my opinion does not fully address the educational gap for Indigenous students entering into PSE.

The need for earlier outreach and early information

In a three-year American case study, Cooper and Liou (2007) looked at the difference between students who had access to high stakes information versus students who had only functional information. While high stakes information empowers the student to be more active in their educational development, functional information serves only to benefit the needs of the school (p. 5). Although the study focused on urban students, Cooper and Liou (2007) stress the point that the social distribution of information⁸ that middle class students get and use to secure their participation in PSE does not get distributed to other urban students (low socio-economic

⁸ **Distribution of information** is a term used to describe how the unequal distribution of information limits one's opportunities to participate in different social and institutional contexts from Stanton-Salazar in 1997 (p. 45).

status, students, and first generation students). Similarly, Ontario University Student Alliance (2011) also found that students from rural and northern areas might have fewer informational resources on PSE available to them and might rely on informal sources⁹ of information like the internet (p. 14). Furthermore, there are also informational barriers, which “refer to a lack of necessary information about educational options, career pathways and educational financing to pursue post-secondary studies” (O.U.S.A., 2011, p. 20). This lack of important information makes the government initiatives and programs ineffective for underrepresented groups in Canada. I am suggesting that the lack of high stake information might also be a reason that some First Nation students on Northern Ontario reserves may be missing out on early PSE information. With regards to informational barriers, recent literature suggests that school counselors have little influence on a student’s decision to attend post-secondary (OUSA, 2011; Cooper & Liou, 2007) because counsellors spend a majority of their time with student’s personal issues like health and functional information like course offerings.

According to National Postsecondary Education Cooperative (NPEC), a number of other individuals in addition to guidance counsellors interact with students in multiple ways, shaping their predisposition, search and choice (Hossler & Gallagher, 1987), including parents, older siblings, peers, as well as mentors (MacAllum et al., 2007).

Clearly, informational barriers play a significant role in the decisions made by Ontario First Nation rural youth regarding PSE. Although this has been known for some time, not enough has been done to address these challenges. Part of the challenge is that since almost half of Canadian youth decide whether or not to enroll in PSE before they reach

⁹ **Informal sources** of information could that you get from a friend or the Internet.

grade nine, information about post-secondary pathways must be made available early.
(OUSA, 2011, p. 21)

Although the Canadian government has implemented several programs and strategies to lessen the barriers that underrepresented students face when it comes to PSE, the gap is still widening. The Auditor General Status report (2011) indicated that the educational gap between Indigenous and non-Indigenous PSE attainment would take more than 28 years to close (Drummond, 2013; Giroux, 2012; OUSA 2011; Holmes, 2006). Why is the gap widening? There seem to be overlapping reasons. A lack of structure according to Drummond (2006); Despite the work of governments and educational leaders over decades and the development of promising initiatives in a number of regions across the country, there is no First Nation education system that consistently supports and delivers positive outcomes for First Nations in Canada. What we have is a patchwork of policies and agreements that do not provide an adequate foundation to support comprehensive improvement or meet the accountability requirements of ensuring that all partners in the education of Indigenous students do better (p. 6) Pin & Rudnicki (2011) also suggested that the government is lagging behind in seriously addressing the current educational attainment gap between Indigenous and non-Indigenous students by stating that:

Even after controlling overlapping characteristics that affect PSE participation like income, parental education status, rural location, and disability, in Ontario the gap remains 28 per cent. What this indicates is that being Aboriginal makes an individual far less likely to access post-secondary education in Ontario than anywhere else in Canada, and a significant portion of this gap cannot be explained by financial, parental, geographic and disability factors alone. (p. 8)

Similarly, OUSA (2011) noted that even with several initiatives such as bursaries, e-learning, and retention programs “despite these and other efforts, underrepresented groups have largely seen static or widening participation gaps. Without an integrated plan that tackles multiple access barriers from an early age, this situation is unlikely to change” (p. 5). Early outreach and early PSE information is vital for rural Indigenous students to be able to participate in higher education. Some studies point to institutions doing PSE information outreach before students, who are the average age of 13 or 14, reach high school (Cheung, 2007; Finnie, Childs & Wismer 2010; Gale et al., 2010).

So, what does this all mean in terms of not only access, but specifically the timing, type, and amount of information received with regards to rural Indigenous students about PSE? One American study looked at promoting rural postsecondary preparation to urban students, enabling them to engage school community partnerships. Alleman and Holly (2013) looked at “beneficial symbiosis between rural localities and their schools” (p. 1), where the role of the community was considered in actively promoting educational values and outcomes. This is similar to what Finnie (2014) referred to as a “culture of PSE” (p. 61). According to several studies, early outreach initiatives are important to improving access to PSE for Indigenous students (Holmes, 2006; OUSA 2011; Pin & Rudnicki, 2011). Therefore, confirming the need for early outreach. Most of the literature on student success about to PSE, regardless of country, population group or type of study all have one very important factor in common; early outreach, intervention, and information regarding PSE points to youth making educational decisions regarding PSE before their 15th birthday (Usher, 2005).

The far-reaching ramifications of choosing to take applied (college) versus academic (university) courses once a student reaches high school plays a crucial role towards their PSE opportunities. According to *People for Education's, Annual Report on Ontario's Publicly Funded Schools 2013*, “there is a widespread belief that applied courses are easier” (p.2), and also because “once a decision has been made to take a number of applied courses in grade 9, it is unlikely a student will change back to an academic track” (p.2). Since “applied and academic course-taking patterns appear to be heavily influenced by students’ family background” (p.3) and that applied students were more likely to be of Indigenous identity. Therefore, if Indigenous students were aware of the program admission requirements earlier (type) they would be more likely to take academic courses in high school to meet the requirements of admission to university. The lack of early outreach and information leads to large discrepancies in educational choices which influence labour market outcomes for Indigenous students. The report, *People for Education (2013)* found startling differences between academic and applied schools in terms of socio economic status that included family incomes, parental education, Indigenous identity, and language needs (p.3) particularly that Indigenous students were more than three times (3.7) more likely to be choose applied courses (p.3). Thereby, making an Indigenous student’s pathways longer, and or inefficient. The upshot to all of this is that two individuals who objectively face the same upfront costs and the same future benefits of going to PSE, and who should therefore make the same PSE decisions according to the standard economics model, may in fact i) have different (objective) information sets ii) perceive the costs and benefits of the schooling differently, or iii) arrive at their decision using means which will favour either going to PSE or not, depending on whether or not they were raised in a ‘pro PSE culture’ (People for Education, 2013, p.1165).

The relationship between provincial, federal governments and Indigenous peoples in Canada regarding education is not a positive one (Uribe, 2010, p.1). In order for Indigenous people to increase the number of their students participating in and graduating from post-secondary, especially university, the communities need to create a positive “culture of PSE” from within their own strengths. This could include community mentors (those who have attained PSE), positive educational administration and personnel, teachers, elders, parents and siblings. The reason for this is because Indigenous peoples tend to be typically skeptical of government initiatives geared towards improving their educational outcomes due historically to the government run Residential School system and the attempted assimilation of Indigenous populations through a colonizing education system (Battiste, Bell, & Finley, 2002). Collaborating with community members and sharing their stories about their educational pathways are important for members to envision their own pathway to PSE success, and should act as a crucial source to obtain the proper information about PSE.

Higher education is crucial to developing capacities within Indigenous communities. As cited by Preston (2008), “the attainment of higher levels of education is related to an improved standard of living, as exemplified through greater employment satisfaction, higher incomes, improved health, and longevity of life” (p. 1). Although Indigenous enrollment and involvement in post-secondary education is increasing, it still lags far behind the national standards, but we need to be at the level where “higher education must be seen as a natural pathway” (Milne, Creedy, & West, 2016, p.387). According to the Canadian Census 2016, there has been significant strides made in Indigenous people graduating with a high school diploma, however there is still a huge gap and perhaps a widening one when it comes to the attainment of Indigenous people with a university degree compared to the non-Indigenous population.

Currently, the university attainment gap between Indigenous and non-Indigenous populations remains at 20% (Statistics Canada, 2011, 2016; National Household Survey, 2006; Economics TD 2014).

According to the report *Ontario Undergraduate Student Alliance study entitled Breaking Barriers: A Strategy for Equal Access to Higher Education (2011)*, the “underrepresentation is due to a variety of barriers that include, but are not limited to, financial, informational, motivational, academic, physical and geographic factors. These groups historically have included low-income students, Aboriginal students, first generation students, rural and northern students, students with dependents and students with disabilities” (p.4).

The literature confirms that there is “lack of a comprehensive approach to tackle the full range of barriers” which had led to stagnant or widening participation gaps for students from underrepresented groups (OUSA, 2011, p. 7). Finnie, Childs, and Wismer (2011) identified that disadvantaged groups with respect to accessing postsecondary education (PSE) had the following components:

1. those from low-income families;
2. those from families with no prior history of attending PSE (i.e., first-generation students);
3. those with immigrant status or with minority race/ethnic status;
4. those from single-parent (or other “non-traditional”) families;
5. those living in rural areas and others who live far from college or university campuses;
6. those whose mother tongue is French (outside of Quebec);
7. those of Aboriginal or First Nations ancestry; and

8. those with disabilities (p. 3).

Indigenous students in Northern rural Ontario, fall into one or more of the above disadvantaged groups and therefore should be a focus for ensuring access to post-secondary. With respect to the education and career aspirations of Indigenous peoples, Holmes (2006) recognizes that early intervention is key to participation at the post-secondary level by stating that:

Children need to make decisions about what subjects to study in school quite early in their school careers. At the same time, families need to be encouraged to accept a university education as a realistic option for their children and to encourage them to stay in school and to make right decisions along the way. While this is true for children from all backgrounds it is particularly true for Aboriginal children who are more likely to come from families that do not have a history of postsecondary education. University staff members who engage in Aboriginal recruitment are well aware of this and some universities are actively engaged in promoting university as an option to students as young as 10 and 11. (p. 18)

Therefore, it is critical that universities begin to build relationships with Indigenous communities early and make connections between their institution and Indigenous students. It is hoped that the earlier students have exposure to build a relationship with post-secondary institutions the more likely the students will focus and align their educational goals towards post-secondary and succeed in graduating. McCue (2004) argues that “It is time to acknowledge that the one-size fits all approach in elementary-secondary education does not work for First Nations in Ontario” (p. 6).

The basic models of influence for students according to Alleman and Holly (2013) are family, school, and the community (p. 1). First Nations bands in Northern Ontario have always had the view that traditional education was a community endeavour “interwoven into the life of the tribal society...an ongoing educational process about religion, life, hunting...bravery, courage, kindness, sharing, survival (Snow, 1977, as cited in Carr-Stewart, 2006, p.7). Further, that “in 1894, an amendment to the *Indian Act Section 137*, re-enforced Canada’s Indian educational policy of not involving parents or communities in the education of their children” (Carr-Stewart, 2006). In addition to this, Indigenous students who wanted to pursue higher education were further discouraged because “according to the *Indian Act (1867), Section 86 (1)* Enfranchisement¹⁰ became compulsory in a number of circumstances including becoming a doctor, lawyer, Christian minister or earning a university degree” (Furi & Wherrett, 2003). This section of the *Indian Act* was not amended until 1985.

For over 35 years, numerous reports have documented the very serious problems with the provision of First Nations education in Canada, including teacher training, retention and recruitment, the development of culturally-appropriate curriculum, language instruction, parental engagement, and funding necessary to deliver a high-quality education. Together, these studies advance a number of crucial reforms aimed at improving the educational outcomes of First Nations youth. To date, however, very few of the proposed reforms have been implemented. (The Standing Senate Committee on Aboriginal Peoples, 2011, p.1)

¹⁰ **Enfranchisement** is a legal process for terminating a person's Indian status and conferring full Canadian citizenship. Enfranchisement was a key feature of the Canadian federal government's assimilation policies regarding Aboriginal peoples. <https://www.google.ca/webhp?sourceid=chrome-instant&ion=1&espy=2&ie=UTF-8#q=definition%20of%20enfranchisement>.

For this reason, the reforms that have been implemented are not closing the gap between non-Indigenous and Indigenous graduates in Northern Ontario. The 2006 Census indicated that only 39% of Indigenous peoples aged 20-24, living on reserve had completed high school or obtained an equivalent diploma. In 2016, the census data revealed that it had risen to 48%. By comparison, the Canadian average for high school completion for non-Indigenous peoples aged 20-24 was more than 87% in 2006 and 2016 it was 92% (Richards 2017; Statistics Canada, 2006, 2016 Census). That means that over 60% of the Indigenous young adults living on reserves in Canada in 2006 and 50% in 2016 did not have an Ontario Secondary School Diploma (Grade 12). This is very disheartening considering that 46% of Indigenous peoples will soon be under the age of 25 according to Canadian population statistics. Canada's Indigenous population is growing 3.5 times faster than the non-Indigenous population (Chiefs Assembly on Education, 2012, p. 1). This issue is also important to examine because by increasing the number of students that succeed in PSE, this increases the potential of participation to assist their communities in making effective changes socially, economically and culturally.

Half of the Indigenous population still resides on First Nation reserves in Ontario. It is important that they receive all the information necessary at an early age to be able to envision an academic future in PSE. These latter issues highlight the need for solutions and strategies so that students can engage at the post-secondary level. For this particular research, I decided to conduct my research at Laurentian University (where I work) as it has an estimated 1,100 First Nation, Métis and Inuit students. As well, a large number of these students are from Northern Ontario communities (rural, urban and on-Reserve).

Theoretical Framework

According to Chilisa (2012), Postcolonial¹¹ Indigenous research methodologies must be informed by the ability to resist Euro-Western thought and the further appropriation of Indigenous knowledge (p.11). Many Scholars (see Bishop, 2008a, 2008b; Chilisa, 2005; Mutua & Swadener, 2004; Smith, 2008, 2012; Swadener & Mutua 2008; Wilson 2008, as cited in Chilisa (2012), articulate resistance to Euro-Western research methodologies by discussing a process called decolonization.¹² A decolonization approach involves creating and consciously using various strategies from oppressive conditions that continue to silence the voices of the colonized, but it also involves the restoration and development of new ideas that contribute to the empowerment of Indigenous societies (Smith 2008 as cited in Chilisa 2012, p. 14). So how does an ally or advocate go about this decolonizing process within his or her own research? According to Poka Laenui, as cited in Chilisa (2012), there is a five-stage process of decolonization that involves rediscovery and recovery, mourning, dreaming, commitment and action (p.15). For the non-Indigenous researcher doing Indigenous research this involves; educating oneself about the history and culture of the colonized from their perspective; questioning why previous Westernized research is not making significant changes in the lives of Indigenous peoples; shedding the Western bias; understanding the responsibility of conducting Indigenous research; giving voice to non-Western research processes; and finally, to promote empowerment and inclusivity and respect. The onus is on the researcher to search for a research approach that is

¹¹ In *Indigenous Research Methodologies*, Chilisa states that **postcolonial** is a word used in the research context to denote the continuous struggle of non-Western societies that suffered European colonization, Indigenous peoples, and historically marginalized groups to resist suppression of their ways of knowing and the globalization of knowledge, reaffirming that Western knowledge is the only legitimate knowledge (p.13)

¹² Decolonization is a process of centering the concerns and worldviews of the colonized other so that they understand themselves through their own assumptions and perspectives.

conducive for Indigenous research. Participatory research, for example, actively involves “finding solutions, and taking action to address their concerns and to work for the betterment of the communities” (Chilisa, 2012, p. 17). More importantly, it is critical for the researcher to implement strategies for decolonization that will retell the stories from the past, but also envision the future (Chilisa, 2012, p.17).

The resurgence of Indigenous knowledge according to Battiste (2010) is “a re-learning or unlearning of the layers of oppression and trauma” (p. 16). Contemporary Canadian society is ‘beset with subtle racial tensions’ and this has serious implications for Indigenous university students as policy for higher education in Canada often still presumes assimilation (Sydell and Nelson 2000, 627; Clark et al. 2014 as cited in Bailey (2016, p. 1263). According to Cote-Meek (2014) oppression is still ongoing and traumatic in the post-secondary classroom (p.18). Further, “today, Indigenous peoples around the world continue to feel the tensions created by a Eurocentric educational system that has taught them not to trust Indigenous knowledge” (Cote-Meek, 2014, p.16). Indigenous knowledge according to Battiste (2002) has always existed and that;

The recognition and intellectual activation of Indigenous knowledge today is an act of empowerment by Indigenous Peoples. The task for Indigenous academics has been to affirm and activate the holistic paradigm of Indigenous knowledge to reveal a wealth and richness of Indigenous languages, worldviews, teachings, and experiences all of which have systematically been excluded from contemporary educational institutions and from Eurocentric knowledge systems. Through this act of intellectual self-determination,

Indigenous academics are developing new analysis and methodologies to decolonize themselves, their communities, and their institutions. (p.4)

Another challenge for Indigenous researchers is that there are three audiences whom we engage for transferring the knowledge of one's research. The first is to make sense to the general Indigenous community. Second, is how the findings must clearly be articulated to the non-Indigenous academy, and third, that both the means for arriving at and the findings themselves must resonate with other Indigenous researchers who are in the best positions to evaluate the research (Kovach 2009, p. 134). In addition, Indigenous researchers have come to realize that:

In searching for solutions is very much part of a struggle to survive; it is represented within our own traditions for example, through creation stories, values, and practices. The concept of searching is embedded in our worldview. Researching in this sense, then, is not something owned by the West, or by any institution or discipline. Research begins as a social, intellectual and imaginative activity. (Smith, 2012, p. 202)

The challenge for me and for my research is that I have been taught the Eurocentric Westernized approach to research and methodology as well as Indigenous research methods and worldviews and I must now fuse two approaches together to produce research that will satisfy the academic institution as well as serve the Indigenous community I am researching. It is considered an evolving process, but "Indigenous methodologies are often a mix of existing methodological approaches and indigenous practices" (Smith, 2012, p. 144). Indigenous researchers have to meet the existing methodologies and the Indigenous criteria where the

Indigenous agenda challenges the researcher to work across those boundaries (Smith, 2012, p.142). I chose to use an *envisioning* and a *representing* agenda for my research with regards to this thesis. The reason I have chosen an *envisioning* agenda is because according to Smith (2012), it is one of the strategies that Indigenous Peoples have used to rise above present day situations, dream a new dream, set a new vision, change their own lives, and set a new direction for themselves (p.153). I also chose a *representing* agenda because it is about “countering the dominant society’s image of Indigenous Peoples” and proposes “solutions to real life dilemmas” (p.151) such as pursuing higher education.

It is my hope that this research will challenge the status quo and set a new direction for Indigenous pathways to PSE practices. Although a quantitative survey tool itself is predominantly Western in its approach, I chose to draw on Battiste and Barman (1995). Indigenous worldview as a major framework for understanding the process, the data and the findings. Eber Hampton (1995) writes so eloquently of Indigenous knowledge being an “autumn seed”:

The Europeans took our land, our lives, and our children like the winter snow takes the grass. The loss is painful but the seed lives in spite of the snow. In the fall of the year, the grass dies and drops its seeds to lie hidden under the snow. Perhaps the snow thinks the seeds have vanished, but it lives on hidden, or blowing in the wind, or clinging to the plant’s leg of progress. How does the acorn unfold into an oak? Deep inside itself it knows—and we are not different. We know deep down inside ourselves the pattern of life. (Battiste & Berman, 1995, Ch. 1, p.31-32)

I have chosen the autumn seed to be the overall framework of my thesis. I will discuss more in the following sections how I aim to implement the “autumn seed” approach.

CHAPTER 3

Methodology

Why Indigenous Quantitative Research?

My research used a quantitative survey approach. The power of statistics and the “very real way censuses operate as a kind of lens through which we look at the social world” (Walter & Anderson, 2015, p.15) has ultimately shaped how the colonized world looks at Indigenous people and in essence, how Indigenous people in Canada have come to view themselves compared to Western standards. Walter and Anderson (2015) explain this idea very clearly when talking about quantitative data and the lens that it has had on shaping the lives of Indigenous peoples in Canada. Their central argument therefore, “is the colonial habitus¹³ of the settler majority (who are the primary producers and users of Indigenous statistics) shapes the dominant quantitative methodological practices in these countries and, furthermore, that this habitus constitutes Indigenous statistics in a particular way” (p.15) Further, the habitus of Indigenous peoples in Canada has very much been shaped by a Western social worldview.

First, I specifically chose to use quantitative statistical analysis for my research because “current mainstream statistical methodologies largely fail to provide a vehicle for Indigenous people to understand, portray, and constitute [themselves] statistically (Walter & Anderson, 2015, p. 15). Second, much of the statistical data that does currently exist portrays “Indigenous people as deficient and that these portrayals can and do restrict and inhibit other ways of

¹³ Habitus according to Pierre Bourdieu’s refers to the physical embodiment of cultural capital, the deeply ingrained habits, skills and disposition that we possess due to our life experiences. <http://routledgesoc.com/category/profile-tags/habitus>

understanding or using data by, and for, Indigenous peoples” (Walter & Anderson, 2015, p.15).

Third, I want to turn the analytical lens 180 degrees away from its examination of the ‘other’ and create, with my research, what Walter and Anderson (2015) detail as an “understanding and observing of how we rearticulate, reframe, redefine, redesign, and re-practice quantitative methodologies within Indigenous worldviews...for Indigenous and non-Indigenous alike” (p.20). Therefore, my methodological aim was to turn Indigenous quantitative research that has historically been viewed from a deficit based perspective of Indigenous peoples in higher education, to one of a strength based perspective including envisioning, persistence, resilience, and success in transforming, not only how academia views Indigenous students, but that Indigenous students also envision themselves as successful.

On a small scale, an important, but overlooked area of institutional decolonization, for Indigenous research and Indigenous researchers is in the area of quantitative study to “support the construction of alternative Indigenous statistical portraits and narratives, one that accords with Indigenous worldviews and interests” (Walter and Anderson, 2015, p. 16) On a larger scale “quantitative research from an Indigenous frame is a methodological transformative process that acknowledges all of the (Indigenous and non-Indigenous) central presence in contemporary global modernity and does not assume that a movement towards modernity necessarily means a move away from Indigeneity” (p.17).

The Holistic Framework

I adopted the holistic lifelong learning framework that the Canadian Council on Learning (2007) illustrated in their study entitled *Redefining How Success is Measured in First Nations, Inuit and Métis Learning* because it encapsulates metaphorically the seed at the core of learning. Some of the Key attributes of Aboriginal learning are:

1. Learning is holistic
2. Learning is a lifelong process
3. Learning is experiential in nature
4. Learning is rooted in Aboriginal languages and culture
5. Learning is spiritually oriented
6. Learning is a communal activity, involving family, community and Elders
7. Learning is an integration of Aboriginal and Western Knowledge

(Canadian Council on Learning, 2007, p. 6-7).

For Indigenous peoples, the purpose of learning is to develop the skills, knowledge, values and wisdom needed to honour and protect the natural world and ensure the long-term sustainability of life. Learning is portrayed as a holistic, lifelong development process that contributes to individual and community well-being. The Holistic Lifelong Learning Model uses a stylized graphic of a living tree to depict learning as a cyclical process that occurs throughout the individual's lifespan. This learning tree identifies the conditions that foster cultural continuity and provides the foundation for individual learning and collective well-being (Canadian Council on Learning, 2007).

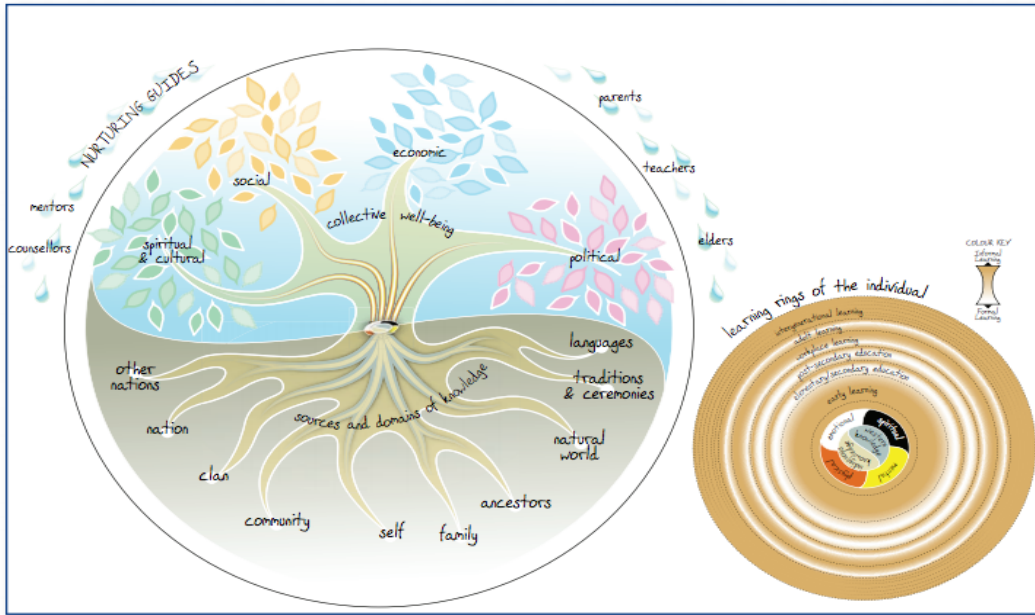


Figure 1. First Nations holistic lifelong learning model (p. 19)

Adopted from http://www.afn.ca/uploads/files/education/5_2007_redefining_how_success_is_measured_en.pdf

Figure 1. depicts the First Nations Holistic lifelong learning model that contains the roots as the learning foundation where the sources and domains of knowledge are represented by the 10 roots that support the tree, and the Indigenous and Western knowledge traditions that flow from them, the branches which represent the individuals experiences of learning to balance the spiritual, mental, emotional and physical dimensions of their being, the leaves that represent the collective well-being associated with cultural, social, political and economic well-being (Canadian Council on Learning, 2007, p. 19). I am particularly interested in what is at the core of the model: The seed that depicts the integration of Indigenous knowledges and Western knowledges together at the very centre of the model.

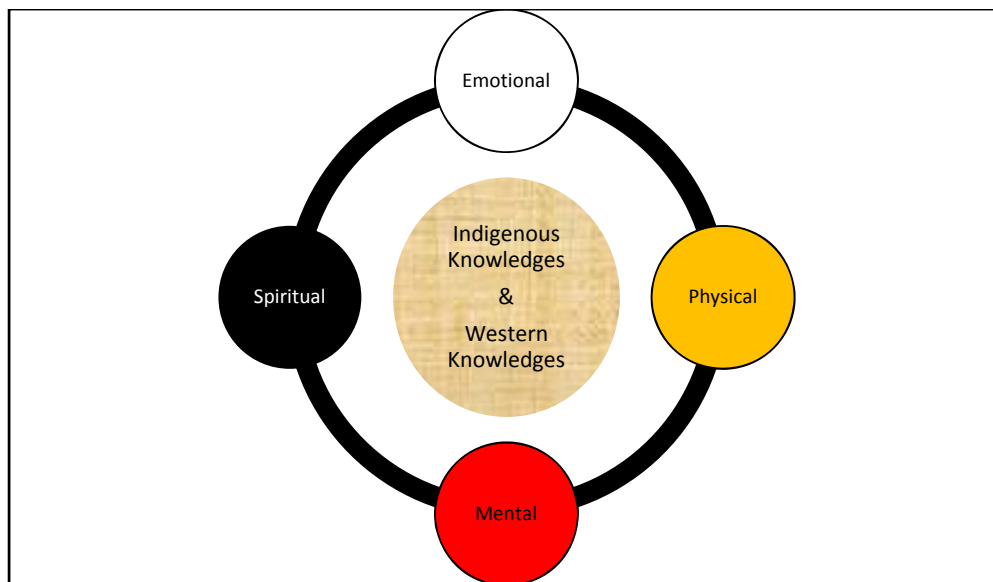


Figure 2. Adaptation of First Nations holistic lifelong learning model core

The reason for this, is that I believe the seed represents the potential of the Indigenous student. For Absolon (2010), “the center represents the fire of life where all directions meet and locates the teachings of integration, balance, interconnections, and holism” (p. 85). I firmly believe that students who have access to critical PSE information at an early stage in their learning allows the seed to flourish, whereas if the seed or student does not have all the necessary information about PSE they will be not have strong roots (sources and domains of knowledge), their learning cycle will be off balance (the rings), the individual’s personal development (the branches) cannot flourish, and the students cannot contribute to the community’s well-being (the leaves). The student who receives the right information through early outreach will be able to make a more informed choice about their future PSE goals and aspirations (proper nourishment), which in turn produces an environment for other seeds to be able to flourish and manifest into a knowledge continuity within the community (Canadian Council on Learning, 2007, p.18).

Demographic Context

For this research, the method I used was predominantly a quantitative research approach that drew upon a fluid survey instrument. The majority of questions were closed questions. I also chose to add a small set of qualitative questions (to help gather meaning to quantifiable data). The qualitative questions are conducive to allowing participants to represent their experiences and vision of what they believe is important or valued with respect to “exploring and identifying” those PSE pathways. For a one month period, commencing in October 2016, the survey questionnaire was activated and the data was collected from participants. Participants who completed the questionnaire identified as Indigenous and Métis students who were enrolled in an undergraduate or graduate program at Laurentian University.

According to Indigenous and Northern Affairs 2016 data, the largest number of people with Indigenous ancestry in Canada live in Ontario (242,495), with 207 reserves and 126 bands.



Figure 3. Satellite image adopted from <http://firstnation.ca/>

Laurentian University, located in Sudbury, is one of the five major urban Indigenous populations in Ontario (Indigenous and Northern Affairs, 2018, para. 1). Ontario is also part of the Robinson Huron Treaty (1850). Sudbury, Ontario and has a regional population of 161, 531 (Census Canada, 2016) and has an estimated population of 15, 695 persons who identify as Indigenous (Census Canada, 2016). Laurentian University has approximately 11, 000 students according to their strategic mandate for 2017, with 10% (1,100 students) estimated to be identifying as Indigenous.

The Questionnaire

The questionnaire took between 15-20 minutes of the participant's time to complete. 34 participants completed the survey questionnaire. Participants were recruited by way of snowball sampling as well as an information letter (see Appendix B) about the research project that was posted by the Administrative Assistant of Indigenous Student Affairs to the Indigenous Laurentian Facebook page. This research project was approved by the Laurentian University Research Ethics Board (REB) on July 25th 2016 (see Appendix C).

I used key questions from the MacAllum, Glover, Queen, and Riggs American study entitled *Deciding on Postsecondary Education: Final Report* (2007) as a guide in creating a set of questions I also chose questions that aligned with experiences unique to Indigenous students. The questions were put into a REDCap questionnaire for students to answer online. REDCap is an online survey method that uses a web-based application that can be remotely accessed. The REDCap survey has been widely used by First Nation partners and researchers. REDCap also has no cost to Laurentian University faculty, staff, of students. See Appendix D for the survey questionnaire.

I also deliberately chose to focus on a questionnaire (as opposed to focus groups or circles) because the nature of my inquiry was to find out from a large number of current students what their educational pathway and experiences were in choosing a degree at Laurentian University. Moreover, four qualitative questions were incorporated into the questionnaire:

1. What was your greatest motivation (s) for attending Laurentian University?
2. What personal strength (s) did you discover about yourself while attending university?
3. What has been your biggest challenge at university so far?
4. Why did you choose the program that you are currently enrolled in?

These qualitative questions allow a participant to write more about their strengths and barriers regarding PSE and enabled them to answer more fully in their own words what their experiences were or have been. The data was then exported into an Excel file for analysis. Also, a survey questionnaire provided an arm's length approach to gathering information and I wanted to ensure that each participant felt free to answer questions without perceived duress. The participant's anonymity was kept by denormalising the data (i.e. separating the person from the interview by way of online survey).

Ethical Considerations

Prior to participating in the questionnaire, participants had to read an online consent of the study and click 'yes' to reading and understanding their participation in the questionnaire. The priority for ethics approval was to maintain confidentiality of the participants. Names of the students, their logins and passwords were double encrypted to ensure that student anonymity was kept. As well, REDCap anonymized the participant's names. The participants were only asked to

give generic details, i.e. age, gender, education levels, place of origin (rural, urban, on reserve etc.). Much of the focus of the questions were about timing, type and amount of information the participants received regarding PSE. As well, there were demographic questions about age, family size, family education, socioeconomic status, pathway questions about secondary education (applied and academic streams), GED (transition, upgrading, alternative path to post-secondary), college, and geographic questions about distance to post-secondary from community, relocation, as well as questions about prior knowledge of a post-secondary institution closest to their community and the relationship the community has with the institution (Refer to appendix D for the REDCap survey questions). Other questions that were asked were about how they received information about post-secondary, from whom did they receive this information and when did they receive this information (age, grade). Participants were informed at the beginning about the proposed study as well as how the findings would be disseminated. Participants were also informed about the aim of my research and key themes that would contribute to empowering students in making informed PSE choices. The protection and respect of the participants was of the utmost importance.

Elders guidance and the traditional Use of Tobacco

Offering Tobacco is a way of giving thanks in advance of a request. Although I was not able to achieve this directly with my participants because my key gathering instrument is an online survey, tobacco was offered to Hilda Nadjiwon, who was an elder on the Laurentian campus to ask for guidance with my research in order for it to be done in a respectful way. Whenever there is a request for guidance, advice, ceremonies or taking from the animal or spirit world, Tobacco is always offered first. According to the Centre for Aboriginal Culture and

Education (cace@carleton.ca), for First Nations or Métis Elders, one must offer tobacco.

Tobacco is one of the four sacred medicines, and it is offered when making a request. The offering can be in the form of a tobacco pouch or tobacco tie (loose tobacco wrapped in a small cloth). It is important that the person making the request should prepare the tobacco pouch or tie. As the pouch or tie is being made it is good to think about what you are asking for, and put good thoughts and prayers into the offering. When making a request, offer the tobacco by holding it in your left hand (in front of you), state your request (be specific), and if the Elder accepts your request place the tobacco in their left hand. The protocol for the use of tobacco is not only limited to Elders, but also includes anyone that you are asking a request from. The importance of the four sacred medicines, and more importantly for doing Indigenous research is that;

Each of the four sacred medicines was given to the First Nations people as a means of communicating with the Creator. Tobacco was the first plant to be received, and is therefore considered to be the most powerful of all medicines and as Aboriginal people we use Traditional Tobacco to represent the honesty that we carry in our hearts when words are to be spoken between two peoples or to the spirit world. When a request is made, a teaching is shared, a question is asked, or a prayer is offered, the Sacred Tobacco travels ahead of the words so that honesty will be received in a kind and respectful way. Tobacco is seen as a gift given to us by the Creator. To offer tobacco is to pay an ultimate respect to that which you are asking.

<http://oursustenance.ca/gardening-101/the-medicines/>, 2019, p. 1)

Furthermore, according to Wilson and Restoule (2010) as cited in Pidgeon (2018, p.6),

In establishing this connection to the Creator, we realize that it is more than merely a tool or a method; it is a practice of faith continued from the beginning of Creation. It follows that, in the use of tobacco there is a great deal of responsibility one must accept. Indigenous research methodologies are founded on relationships, which must, in turn, be based on respect, reciprocity, relevance, and responsibility. (p. 31)

I, therefore used tobacco offerings as a way of guiding my Indigenous research in a respectful and honest way as well as to respect the gifts of the Creator.

Provision for debriefing, counselling and additional information

Participants were provided with access to debriefing, counselling and additional information by way of a letter of information (see Appendix A) about the research project. The participants were also provided with contact information for Laurentian Ethics, my thesis supervisor, as well as, counselling services at Laurentian University. In addition, an online consent was also provided where participants had to click 'yes' that they had read and understood the purpose of the research and that should they encounter any duress that they could withdraw at any time and their data would not be used.

In summary, the purpose of my research was to gather information from students to gain an understanding of relevant timing, type and amount of information regarding their PSE pathway. The questions sought information on predisposition, and choices in an effort to identify potential strategies that could be useful for recruitment methods for First Nation, Métis and Inuit students in Northern Ontario. I wanted to also find out how timing, type and amount of

information is intrinsically linked to student strengths and barriers regarding their pathway to Laurentian University.

CHAPTER 4

Results and Findings

The aim of the study was to look at the timing, type and amount of information that participants received along their pathway prior to their enrollment as PSE students and to look at possible strategies that might lead to higher educational attainment for First Nation, Métis, and Inuit students in Northern Ontario. Students who completed the survey questionnaire identified as either First Nation, Métis or Inuit and were all current students at Laurentian University, enrolled either part-time or full time in a variety of programs and disciplines at either the undergraduate and graduate levels.

Demographics and Pathway Data

In total, 34 participants completed the survey questionnaire. There were 39 questions. Of the 34 participants, 29 identified that their home community was located within Northern, Ontario, while 5 identified that their home community was located outside of Northern Ontario. This is important because Laurentian University is situated on Atikameksheng Anishnawbek Territory and is surrounded by a large number of First Nation Communities. Laurentian University, along with its federated universities of Huntington, Thorneloe, and the University of Sudbury, plays a large role in serving the local Indigenous communities as being the only university campus in Sudbury.

Several participants identified that part of their motivation to attend Laurentian University was because of the close proximity to their home and wanted to contribute or help their community. This is reinforced by the following quotes from participants.

P11: “help my community”

P1: “return to my home community to help children/youth”

P28: “I chose Laurentian to help my community, L.U. offers Indigenous courses and resources that are applicable to my community where I plan to situate my profession.”

P33: “proximity to home” (P33).

Of the 34 participants, 22 identified that they were the First-Generation University¹⁴ in their family to attend university. Of the 22 participants that indicated that they were first generation to go to university, one of the participants said that their motivation to attend university was because they were

P34: “a first-generation student”

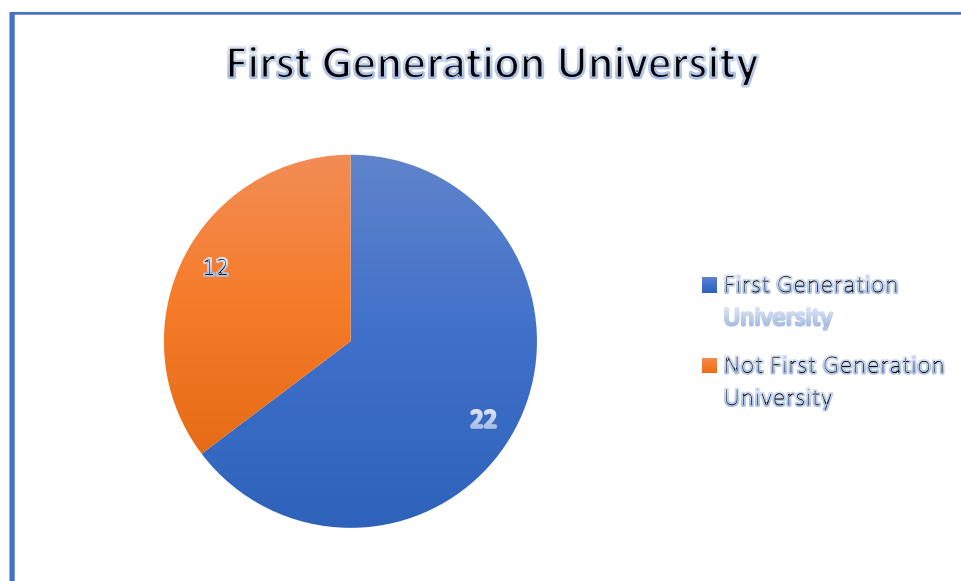


Figure 4. Percentage of participants who Identifies as First-Generation university

¹⁴ For the purpose of this study First Generation University are defined as the first in their family to attend a university institution. Parents and or guardians of the students may have successfully completed College.

Seventeen participants indicated that they were enrolled in 100% course load (5 courses per semester), 10 students were enrolled in 80% course load (4 courses per semester, 2 students were enrolled in 60% course load (2 courses per semester), and 5 students were enrolled in under 60% course load (less than 3 courses per semester).

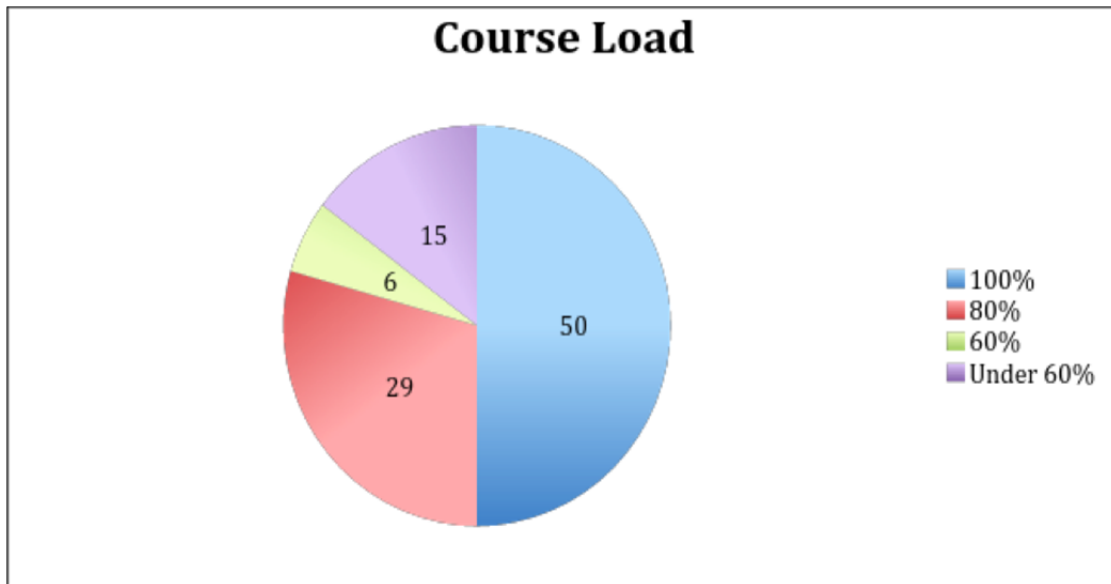


Figure 5 Students course load in percentage

Of the 34 participants, 21 identified as taking on-campus courses, 9 identified as taking off-campus or distance education courses, and 4 identified as taking a combination of both on-campus and off campus courses.

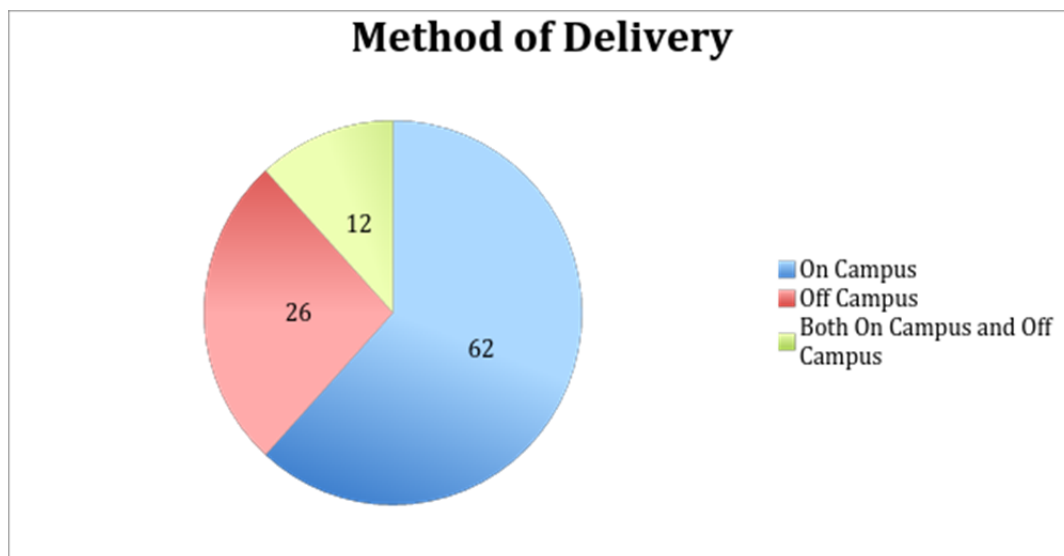


Figure 6. Method of course delivery in percentage

Of the 34 participants, 28 identified as First Nation and 6 identified as Métis,

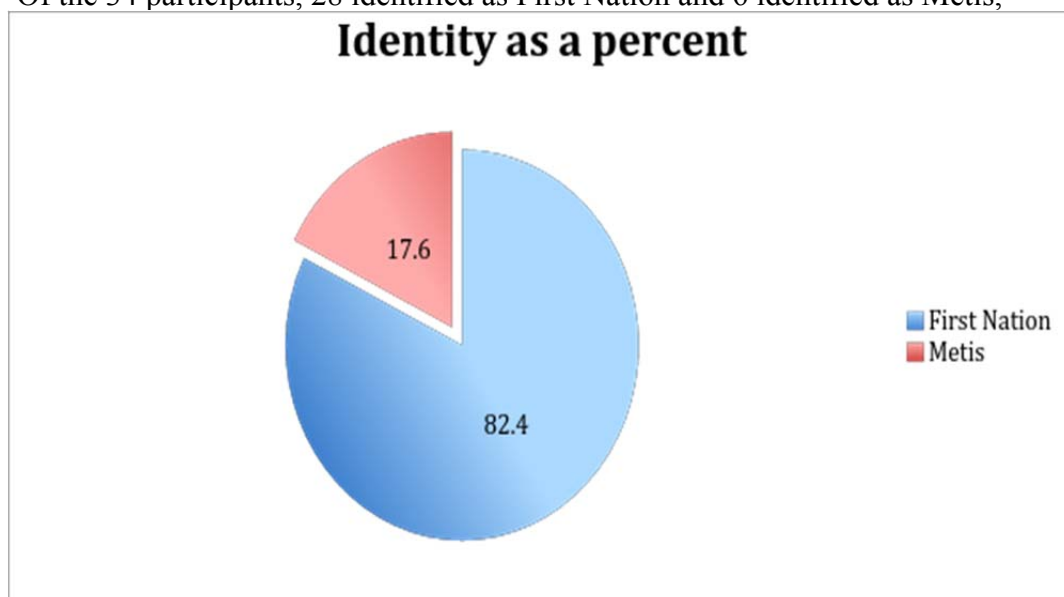


Figure 7. Self-identification of participants as a percentage

and of those, 25 identified as status¹⁵ and 9 identified as non-status¹⁶.

¹⁵ **Status Indian:** A person who is registered as an Indian under the *Indian Act*. The act sets out the requirements for determining who is an Indian for the purposes of the *Indian Act*. <http://www.aadnc-aandc.gc.ca/eng/1100100014642/1100100014643>

¹⁶ **Non-Status Indian:** An Indian person who is not registered as an Indian under the *Indian Act*. <http://www.aadnc-aandc.gc.ca/eng/1100100014642/1100100014643>

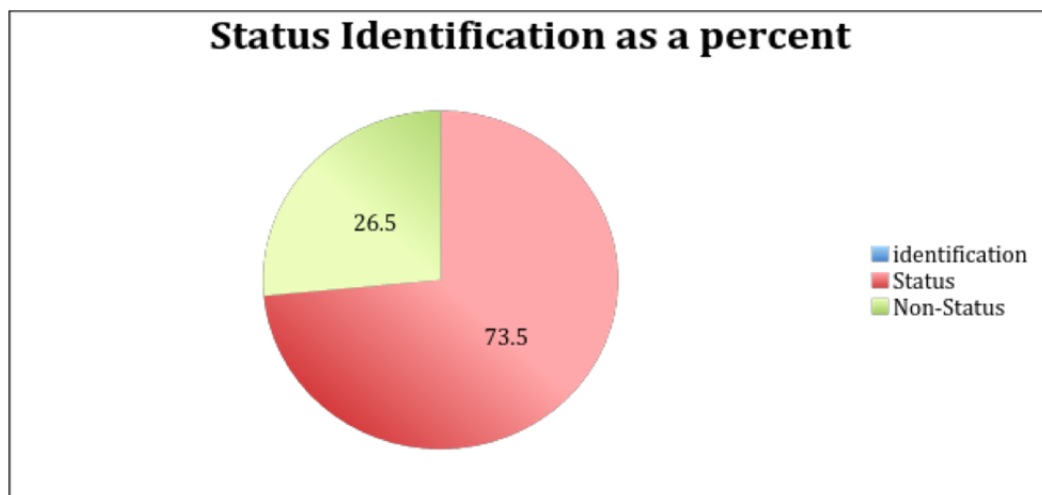


Figure 8. Participant self-identification as status or non-status as a percentage

Of the 34 participants, 29 were female, 4 were male, and 1 chose not to identify as either male or female

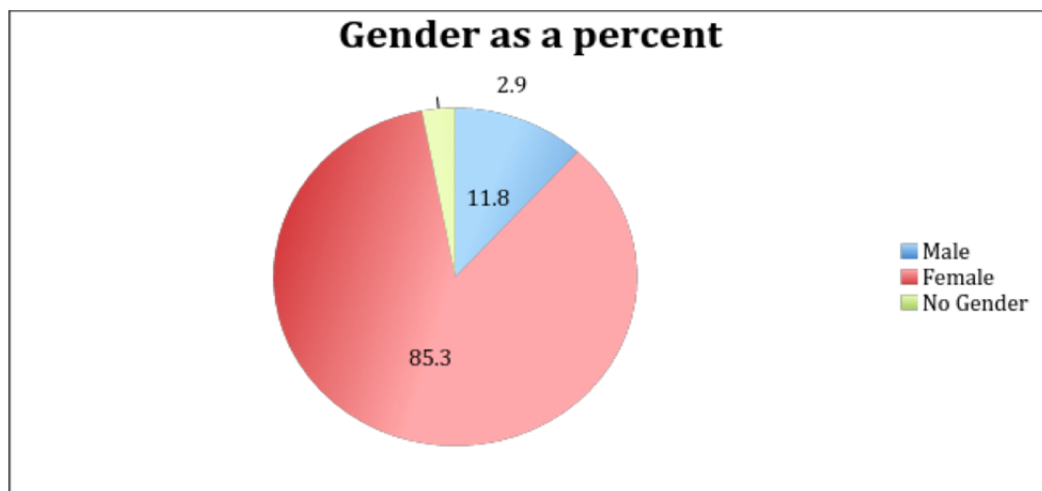


Figure 9. Participant gender as a percentage

Of the 34 participants, 1 student was in the age group 15-18, 11 students were in the age group 19-24, 12 participants were in the age group 25-35, 6 students were in the age group 36-45, 3 were in the age group 46-59, and 1 was in the age group 60+

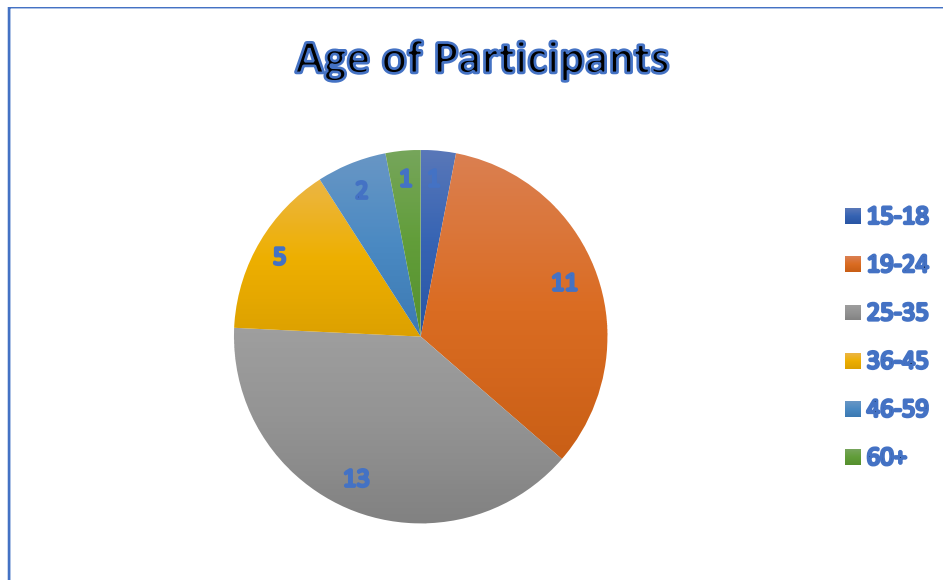


Figure 10. Age of participants

Of the 34 participants, 16 identified as single, 17 identified as married or common law and 1 identified as separated.

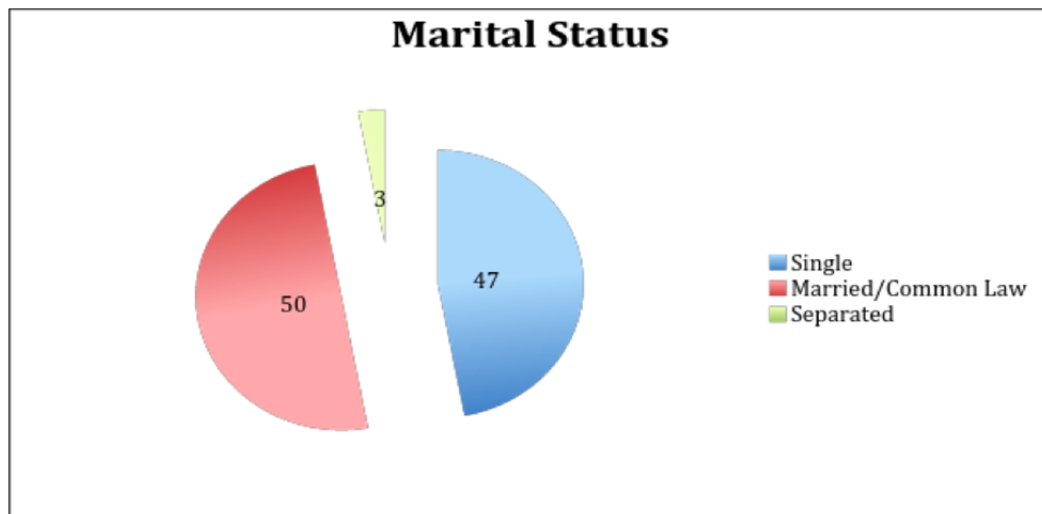


Figure 11. Participants Marital Status as a Percentage

For their current year of study, of the 34 participants, 3 identified that they were in their first year of study, 6 students identified that they were in their second year of study, 5

participants identified that they were in their third year of study, 12 identified that they were in their fourth year of study, 6 identified that they were in a Master's program, and 2 students identified that they were in a Ph.D. program.

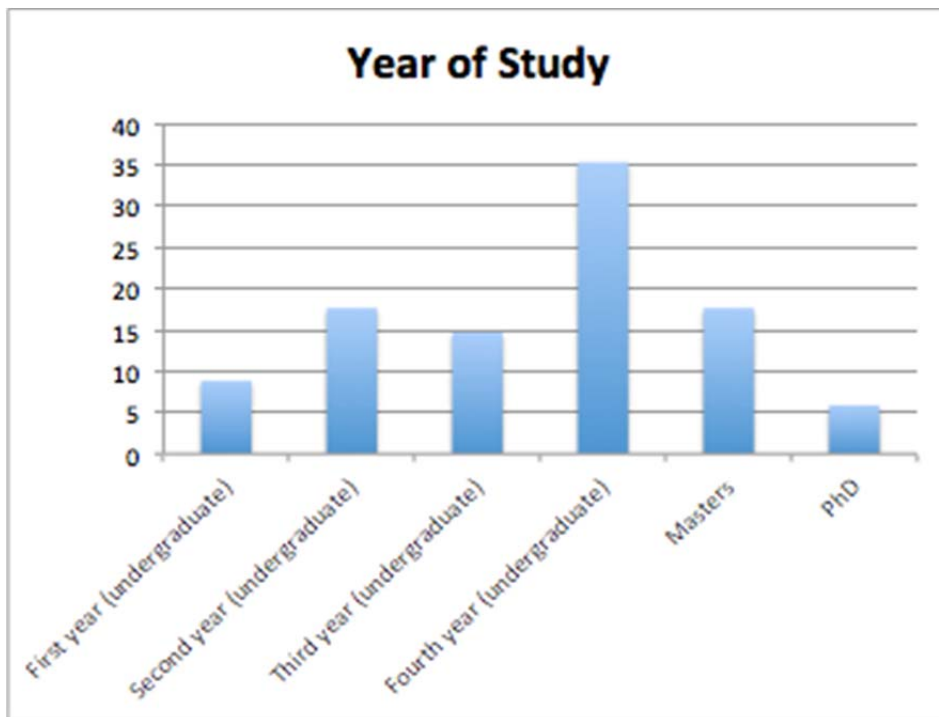


Figure 12. Participants year of study

Of the 34 participants, 12 were enrolled in the Indigenous Social Work Program, 6 participants identified that they were enrolled in a Humanities fields of study, 6 students identified that they were enrolled in Other field of study, 3 students were enrolled in a Science field of study, 4 participants said that they were enrolled in a Social Science field of study, 2 participants identified that they were enrolled in Commerce as a field of study, and 1 participant identified that they were enrolled in the Engineering field of study.

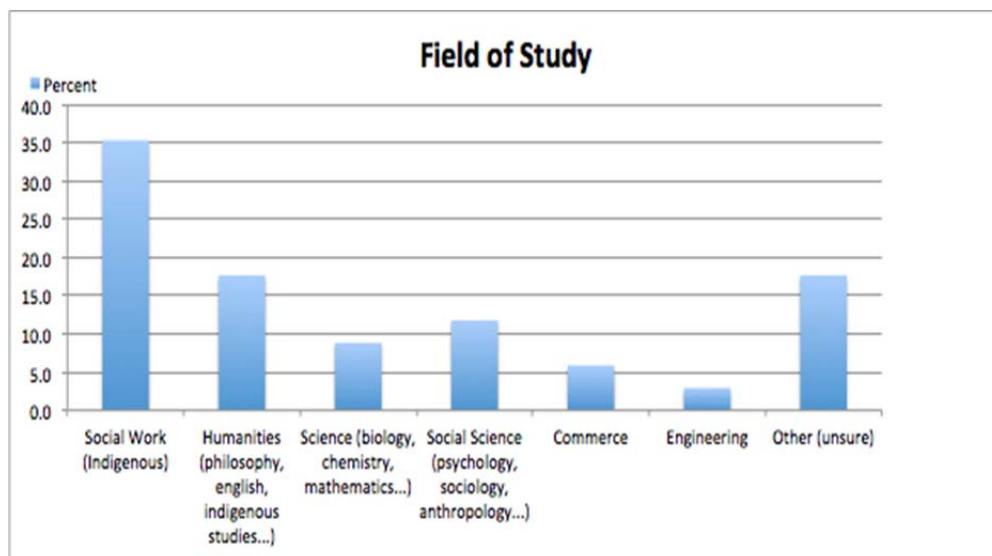


Figure 13. Participants field of study

When describing family income, of the 34 participants, 4 (12%) identified as having an income of less than \$10,000, 7 participants (21%) identified as having an income between \$10,000 to \$20,000, 5 participants (15%) identified as having an income of \$21,000 to \$35,000, 5 participants (15%) identified as having a family income of \$35,000 to \$50,000, 7 (21%) participants identified as having a family income of \$50,000 to \$75,000, 3 participants (9%) identified as having a family income of \$75,000 to \$100,000, and 3 participants (9%) identified as having a family income over \$100,000.

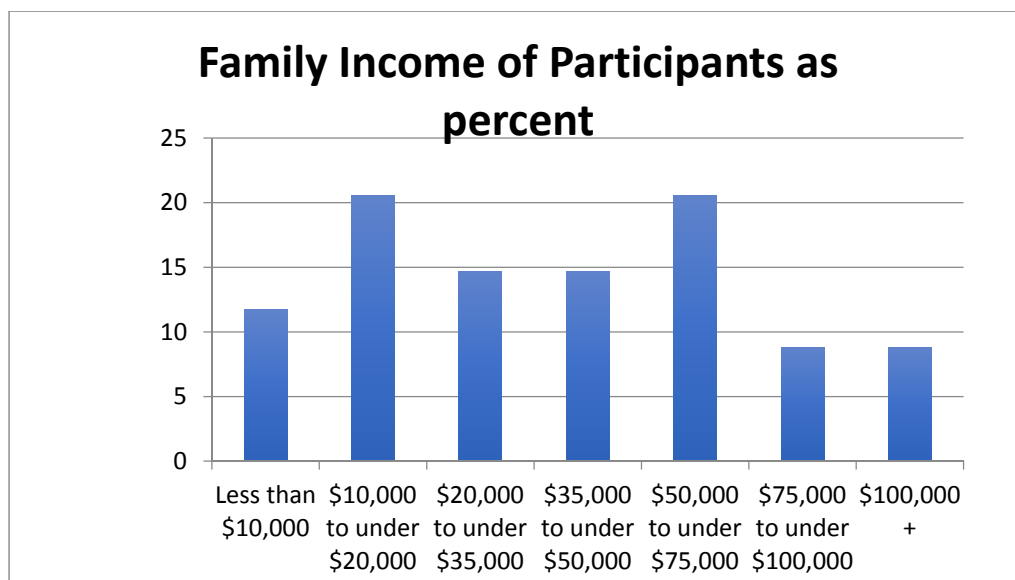


Figure 14. Family income of participant as a percentage

Pathway Data

Q21: Highest Level of Education by parent (s)/Guardian (s)

Of the 34 participants, 3 identified that a parent and or guardian's highest level of education was *less than grade 8*, and 8 participants identified that the highest level of education by a parent/guardian was *less than grade 12*, while 2 identified *completed high school* as the highest level of education by a parent or guardian. Eleven participants identified that a parent or guardian had completed college, 2 identified that a parent or guardian had completed some college or university, 6 identified that a parent or guardian completed university, and 2 students identified that a parent or guardian had completed graduate studies.

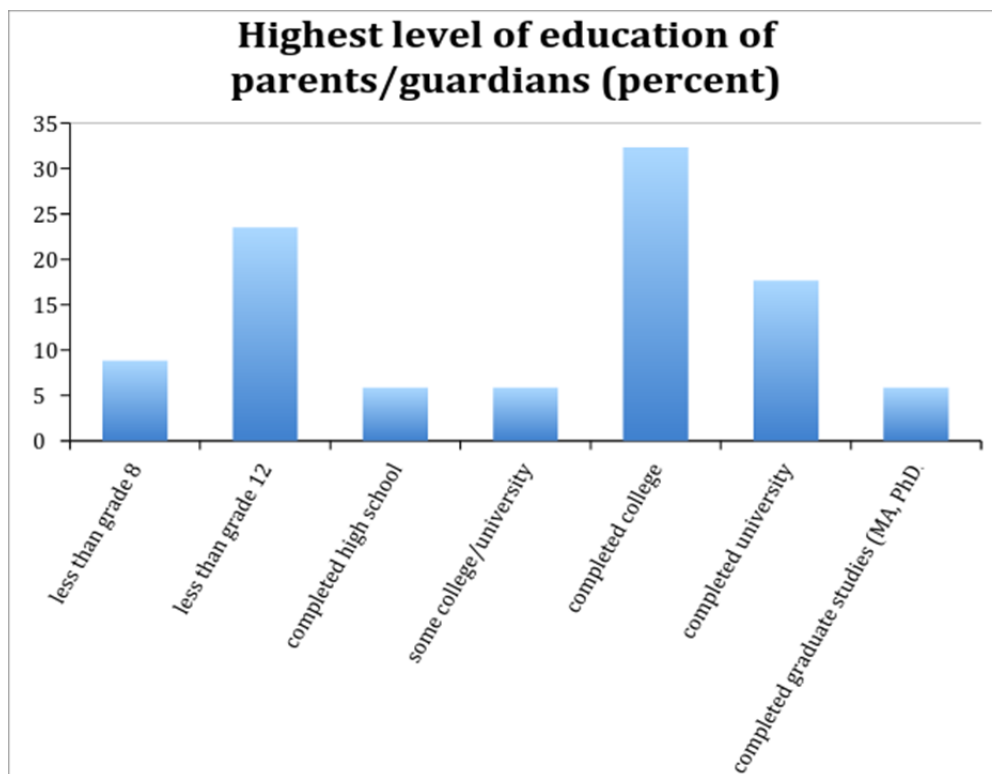


Figure 15. Highest level of education by parent(s) and or guardian(s)

Q13: Pathway to Laurentian (High School, G.E.D, Transition Program, College Transfer, Mature Student)

Of the 34 participants, 23 identified that they graduated from High School, 2 students identified that they graduated from the G.E.D. program¹⁷, 2 participants graduated from the Transition Program, 8 participants identified that they were Mature Student status, while 12 participants identified that they were transfer students. Participants were able to choose more than one option for this answer. Of the 34 participants, 15 identified that they had more than one Pathway field into Laurentian University. For example, some participants identified High school and transfer student or High School and mature student, or Transition program and College Transfer. Some

¹⁷ According to the ILC.com, The General Education Diploma is equivalent to the O.S.S.D, by comparing your test results weighted against grade 12 materials. The tests look at skills and knowledge that a student has acquired. The G.E.D. certificate is widely accepted as meeting O.S.S.D. requirements for the purposes of employment, promotion, licensing, and further education. http://www.ilc.org/ged/main_certi.php

participants identified 3 fields in their pathway to Laurentian University: High school, Mature Student and College Transfer or G.E.D., Mature Student and College Transfer.

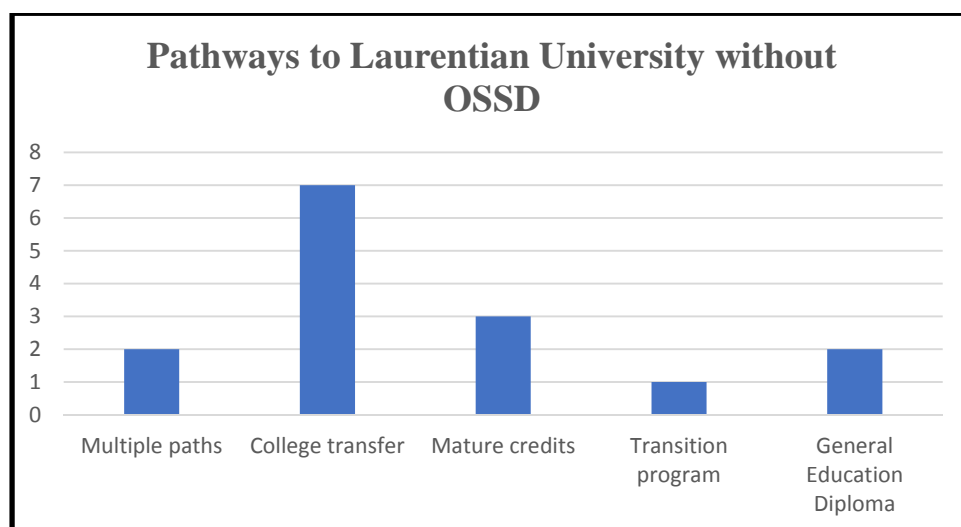


Figure 16. Pathway to Laurentian University for students who did not complete an Ontario Secondary School Diploma

Q14: *Applied, Academic or Alternative stream in high school*

Of the 34 participants, 35 percent identified as having taken the Academic stream in high school and 50 percent participants identified as having taken Applied stream in high school, with 12 percent identifying as having taken an alternative stream in high school and 3 percent of participants did not identify what stream they took in high school.

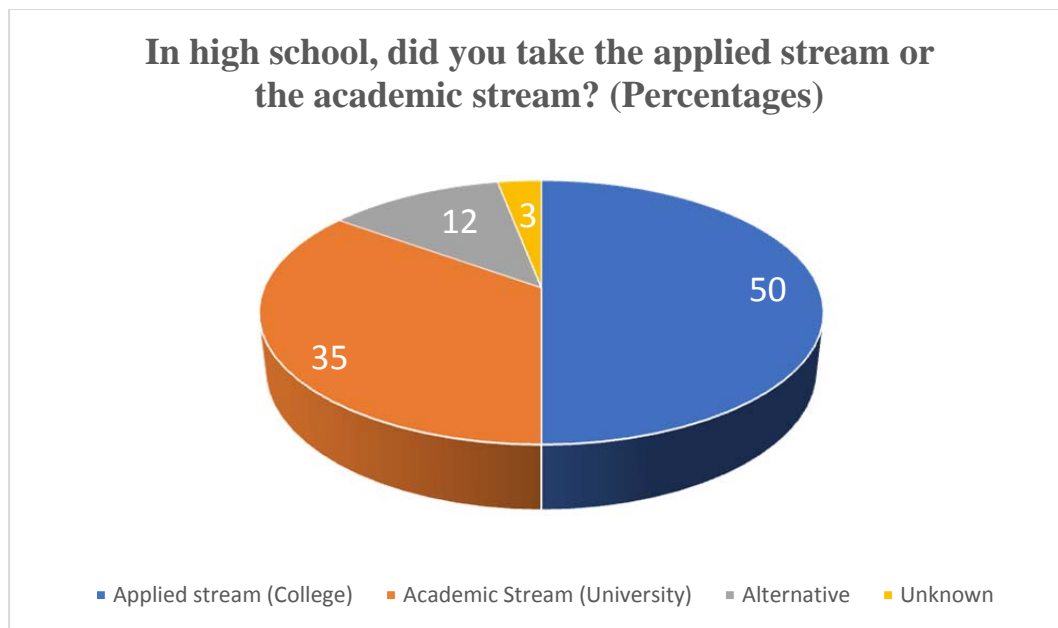


Figure 17. Participants' course stream in high school by percentage

Q22: When did you decide that you wanted to attend post-secondary?

Of the 34 participants, 6 identified that they knew they wanted to attend post-secondary before grade 6, 1 identified that between grades 6-8, 4 identified that they decided to attend post-secondary in grades 9 and 10, 7 said that they decided to attend post-secondary in grades 11 and 12, 7 participants decided to attend post-secondary after high school, and 9 students identified that they decided to attend university while in college. Therefore, 23 participants indicated that they made the decision in grade 11 or later, with 13 participants making their PSE choice after high school or while attending college.

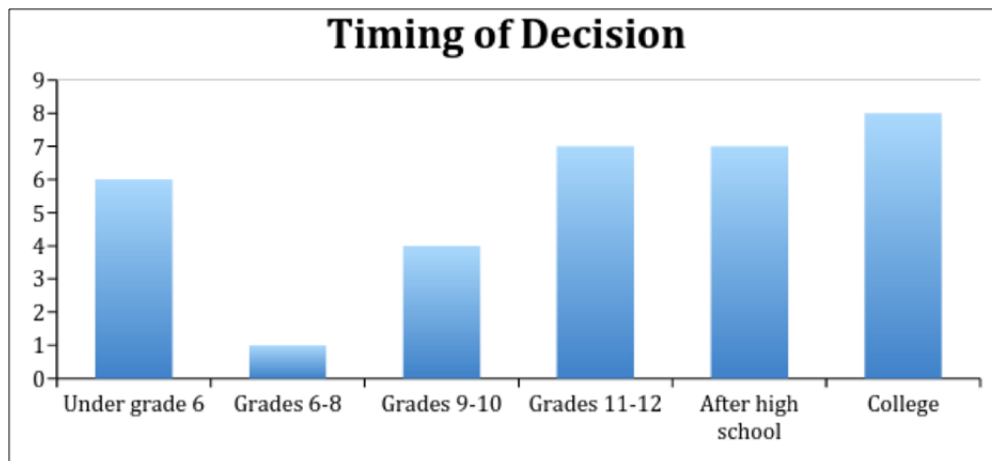


Figure 18. Timing of Decision to Attend PSE

Looking back at the literature, Hossler & Gallagher's (1987) notion of students' increased understanding of their educational options happened much later for these Indigenous participants, and the PSE three stage process did not begin in grade 7 and finish with high school graduation (Cabrera et al., 2005; Cremonini, Westerheijden & Enders, 2008). Participants who indicated a delay in their choice until later, confirms the literature from MacAllum, Glover, Queen, and Riggs, 2007, where students who receive information too late overlook or risk not gaining entry into a PSE.

Q17: Were you aware of Laurentian University (Sudbury Campus) in high school?

Of the 34 participants, 23 identified that they were aware of Laurentian University Sudbury campus while 11 identified that they were not aware of the campus.

Q18: Indigenous Campus Services available to First Nation, Métis, and Inuit students (Elders on Campus, Learning Strategist, Counselor, or Métis Outreach Coordinator) before enrolling in your studies at Laurentian University

Of the 34 participants, 16 identified that they were aware of the Laurentian University Indigenous campus services while 18 identified that they were not.

Q19: *Campus tour prior to enrollment*

Of the 34 participants, 12 identified as having taken a campus tour prior to enrollment while 22 identified that they did not.

Q20: *Relocation to attend PSE*

Although 29 participants indicated in the demographics, that their home community was located within Northern Ontario, of those, 20 indicated that they had to relocate to Sudbury to attend Laurentian University. Eleven indicated that they did not have to relocate to Sudbury to attend Laurentian University.

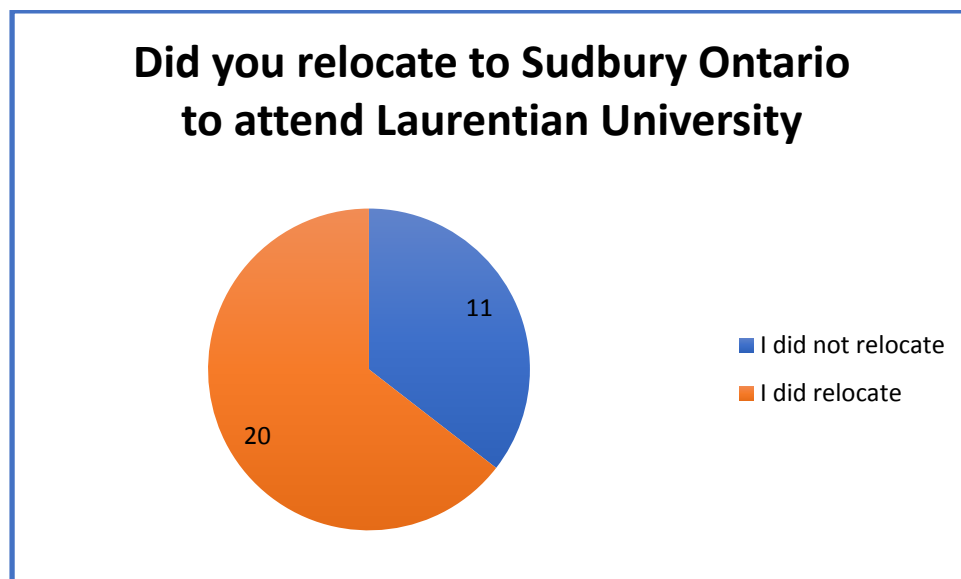


Figure 19. Participants relocating from home community to attend Laurentian University by percentage

Q24: *Barriers to attending Laurentian University*

Of the 34 students, 11 participants chose ***lack of information*** as their biggest barrier, 11 participants indicated that ***distance*** was a barrier to attending Laurentian, 17 participants identified ***financial*** as a barrier to attending, 4 identified educational attainment (applied vs. academic) as a barrier to attending Laurentian University, 11 participants indicated that ***family***

responsibilities was a barrier, 5 indicated *daycare services* was a barrier, while 2 indicated that *racism* was a barrier for them attending Laurentian University. The two participants that indicates racism as an educational barrier,

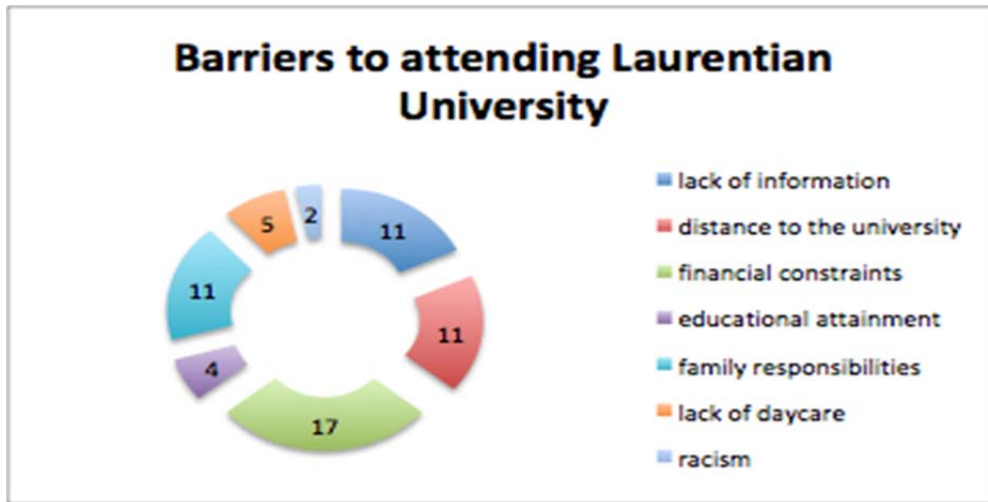


Figure 20. Barriers to attending Laurentian University

Participants experienced a range of barriers. This is similar to what Milne, Creedy and West (2016) discovered with their study that “Indigenous students expressed feeling unfamiliar with university systems and often did not understand the prescriptive academic writing styles required in all academic departments” (p. 391-392). Perhaps if they had better information earlier, this might have avoided stress or challenges.

Q27: How did you receive information about the program that you are enrolled in at Laurentian?

Participants had the option to choose more than one answer. Of the 34, 19 indicated that they received their information about their program from the Internet, 11 indicated receiving their information from others, 7 indicated that they received their information from a guidance counsellor, 6 participants indicated that they received their information from a parent and/or a family member, 5 from a friend, 4 from a teacher, 4 from a University recruiter, and finally 3 participants indicated that they received their information from a community member. The

participants of this study revealed a new trend in how they received information. Participants indicated that the internet was their primary source of obtaining information about the university. Therefore, institutions need to make sure that their websites have up to date information as well as utilizing this type of platform to attract and deliver relevant and high stakes PSE information to a younger generation of Indigenous students interested in studying at a degree level.

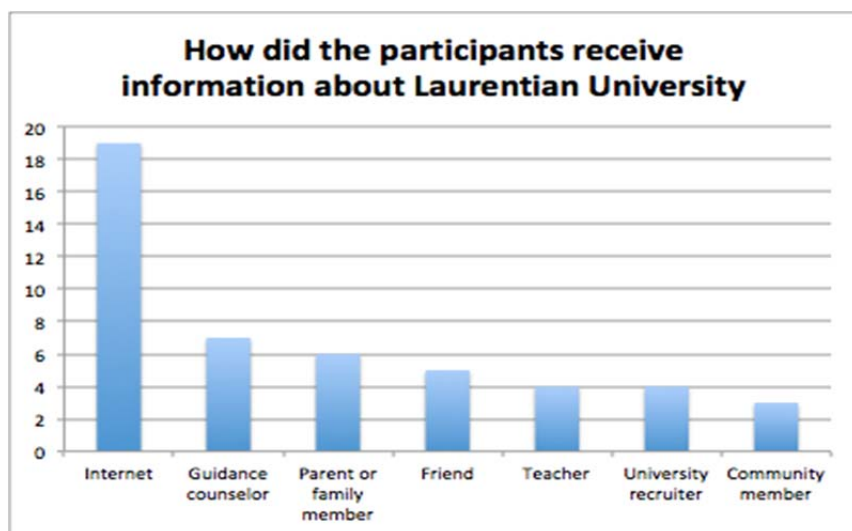


Figure 21. How participants received information about Laurentian University

Q10: *How are you financing your education?*

Participants were asked how they were financing their education. The participants had the option to choose from more than one option. Of the 34 participants, 20 indicated band funding, 5 indicated government student loans, 2 indicated bank loans, 7 indicated bursaries and scholarships, 3 indicated that they work full-time while going to school, 9 participants indicated that they are working part-time going to school and 5 participants indicated other means to finance their education.

Q30: *Did you ever delay post-secondary?*

Of the 34 participants, 9 indicated that they delayed post-secondary studies because of a lack of information, 4 indicated low grades, 12 indicated family circumstances, 3 indicated the distance to the institution as the reason for delay, while 16 participants indicated other reasons for delay in studies.

Q33: *Were you aware of admission standards to your program in high school?*

Of the 34 participants, 22 indicated that they were not aware of the admission standards and 12 indicated that they were aware of the admission standards from early high school.

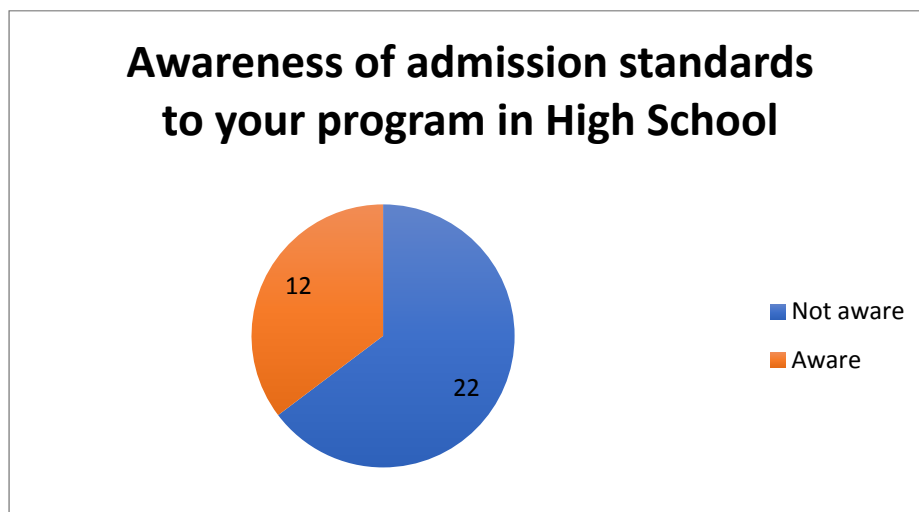


Figure 22. Participants awareness of admission standards to your program in high school

Q34: *Do you have community/and or family support while at University?*

Of the 34 participants, 29 indicated yes, they do have community and or family support while attending university, and the other 5 participants reported that they do not have any community and or family support.

Q35: *Do you feel that you had all the necessary information coming to post-secondary at Laurentian or do you feel that you learned more information once you started your studies?*

Of the 34 participants, 29 indicated that they did NOT have all the necessary information and that they learned more information once they started their studies and 5 participants indicated that they had all the necessary information before they started their studies at Laurentian.

Q36: *Which of the following skills do you feel needed more development before entering University?*

Participants indicated the following skills. Thirteen participants indicated **time management**, 9 indicated **critical thinking**, 2 indicated **organizational skills**, 8 indicated **literacy/writing skills**, 1 student indicated **math skills** and 1 student indicated **computer skills**.



Figure 23. Participants responses to skill development prior to university entry

Q37: *Thinking about your pathway, do you think that you would have benefited from access to more information about post-secondary studies earlier?*

Of the 34 participants, 32 indicated that they would have benefited from more information about PSE earlier. Two students indicated that they would not have benefitted.

Q38: *Would you say that First Nation, Métis and Inuit students would be more likely to attend post-secondary education if the community and institution had earlier (grades 6,7, and 8) outreach program?*

Of the 34 participants, 31 indicated yes to this question while 3 participants indicated no.

Q31: Do you think that more First Nations, Métis, and Inuit students would attend post-secondary if they had more information about the institution and the programs earlier than senior year in high school?

Of the 34 participants, all of them indicated yes to this question.

Q39: Do you think that if Laurentian University and First Nations, Métis, and Inuit communities had improved connections, this would enable more students to successfully complete their studies?

Of the 34 participants, all indicated yes to this question.

Keith, Stastny, and Brunt (2016) identified that one of the key strategies regarding retention and success of Indigenous students was to “increase community connections between the institution and the tribal communities” (p.710).

Future Goals Question

Of the 34 participants, 20 identified that upon graduation from their current degree that their future goals were to enroll in graduate studies, 13 identified that upon graduation from their current degree that their future goals were to work, and 1 participant identified that their future goal after graduation from their current degree is to pursue further undergraduate studies.

Results Summary

The results revealed that almost 65% of participants were first generation university students and 70% of participants indicated that parents had a college education or less. All of the participants either identified as First Nations or Métis, and 85% identified as female. Over 60% of the participants were between the ages of 25-59. The participants indicated that they had multiple education pathways to university and that most did not make a decision regarding PSE until after the eleventh grade. The data also revealed the following;

- one third of the participants were not aware of the Sudbury campus when they were in high school.
- over half were not aware of Indigenous campus services available at Laurentian University prior to enrollment
- almost two-thirds did not take a campus tour prior to enrollment
- more than half received their information from the internet
- sixty-five percent were not aware of admission standards
- eighty-five percent did not feel they had all the necessary information
- ninety-four percent indicated that they would have benefitted from access to more information earlier
- ninety percent of participants feel that more students would attend from earlier outreach
- all participants indicated earlier outreach and improved connections between First Nation Communities and Laurentian University would enable more students to attend and complete their studies.

Cabrera and La Nasa's (2005) study indicated that students decide on a PSE pathway based on awareness of cost, admission standards, scholastic aptitude and support. These participants indicated that they were missing many of these significant outcomes in making their 'choice' regarding PSE. In particular, they were missing information about awareness of admission standards and institutional services such as Indigenous student supports and services.

The quantitative data provides a picture of what information the participants had prior to enrollment, including the timing, type and amount of information they received about PSE.

Qualitative Questions

Participants were asked four qualitative questions as follows:

Q23: What was your greatest motivation(s) for attending Laurentian University?

Q24: What has been your biggest challenge at university so far?

Q25: What personal strength(s) did you discover about yourself while attending university?

Q26: Why did you choose the program that you are currently enrolled in?

For the first qualitative question (Q23), many of the participants indicated that their biggest motivation to attend Laurentian University was because they had previously attended college, but in order to move up in a career, they needed a university degree, for example,

P30: “a field placement with the Sudbury Parole and wanted to be a parole officer, which required a degree.”

P20: “My current job, I enjoy what I do, I am an addiction support worker and in order to climb higher I need a bachelor’s.”

P12: “the logical next step in my career path.”

P1: “Through working, I wanted more. I wanted to do more. I wanted to learn more. I toyed with the idea of going back to school, but feared it due to my programming and false beliefs about my intelligence. I met a co-worker who was in the NHS program and she encouraged me to apply.”

A second theme that emerged from Q23 one was that several participants indicated that their motivation was community, family or environment related.

P3: “help my community and to change the world, wanting more for myself.”

As well, participants indicated that they were motivated by family having attended PSE,

P26: “family was my biggest motivation for me. Both parents and three older siblings were alumni from Laurentian.”

P34: “family has motivated me to further education” (P34).

P:24 “I wanted to pursue higher education to help out Northern communities with a bachelor’s degree.”

For the second qualitative question (Q24) the themes that emerged were time management, balancing responsibilities, having learning disabilities, feeling isolated or depressed, confidence in ability, expectations, lack of support, and geography. Time management emerged as the number one challenge from participants. Time management at school or managing family/school responsibilities were mentioned.

P2: “the biggest challenge learning how to manage time, assignments, due dates, and studying.”

P4: “balancing the workload and school while trying to have a social life and learn about my culture.”

P8: “completing my degree while balancing other responsibilities such as caring for my daughter.”

P18: “I can sometimes be hard on myself for not getting my everyday tasks done in a timely manner.”

P23: “keeping track of readings and assignments.”

P28: “balancing family, children, work and school” (P28),

P32: “work ethic.”

Secondly, participants noted that learning disabilities also poses a challenge while attending university.

P2: “the biggest challenge is due to my learning disability”

Another participant responded that their biggest challenge was dealing with,

P13: “PTSD due to childhood trauma and a lack of support from family”

As well, participants noted personal challenges affected their education.

P29: “personal issues from lack of time, to volunteering to self-esteem.”

P14: “getting used to the expectations that professors have of you,”

while another participant noted that their biggest challenge was just

P30: “to stay in university because of “lateral violence and I did not want to be a part of that.”

Finally, two participants found geography challenging.

P21: “biggest challenge had been the distance,”

to their support system back home, while another indicated that their biggest challenge has been

P25: “adjusting to the size of L.U. has been difficult”

For the qualitative question three (Q25) about what personal strength(s) they discovered while attending university, participants indicated that they discovered an array of personal strengths while at Laurentian. These personal strengths included: Resiliency, finding their voice, gaining independence, perseverance, overcoming self-doubt as well as determination.

P1: “In university, I found my voice...I earned confidence and was able to overcome a lot of the traumatic experiences I’d had in my previous experiences with education.”

P14: “I found out who I am and learned things about myself that helped me connect to my cultural identity”

P17: “I have a voice for fighting the system of oppression.”

P30: “That I had a voice and I obtained leadership skills.”

Some participants also indicated that their personal strengths were

P10: “I learned to become independent quickly” and

P28: “I have overcome a lot of self-doubt.”

Several participants shared that resilience and determination were personal strengths that they gained while attending Laurentian.

P24: “I am resilient in continuing my education”

P25: “I’ve realized how resilient I am against racial stigma and personal hurdles”

P26: “my perseverance made it possible for me to get through my schooling.”

Finally, for the last qualitative question (Q26), participants were asked why they chose the program they’re currently enrolled in, and the answers were themed into community and culture, personal, and career goals. With regard to community and culture, participants indicated that they enrolled in a program.

P1: “because I wanted a connection to culture” and another responded because

P2: “I want to continue work for and with my people”

P8: “to learn about my Anishnaabe identity”

Personal reasons for choosing their current program included;

P11: “it seemed like a good first step to achieving my dream”

P13: “learn more about myself in order to identify my contribution to the field of learning as it evolves.”

P10: “I love the sciences.”

Regarding career/educational goals, participants indicated that,

P15: “it fit closely with my master’s degree”

P26: “It will also help me get a job after graduation”

P31: “to help me get to my career goal.”

The timing of the participant's decisions to attend Laurentian is consistent with the literature (Finnie, Childs, and Wismer, 2011; Holmes, 2006) in that, most students become aware of the pertinent information late in high school or after high school. If we look back Hossler and Gallagher's (1987) three-stage model of decision making that includes predisposition, search, and choice with 'predisposition' starting in elementary and ending with 'choice' in late high school, participants, in my study, indicated that they are making these decisions simultaneously in late high school or after high school.

Findings

Almost all of the participants said that they would have benefited from access to more information earlier and when asked about community outreach and timing of information, all participants indicated that more Indigenous students would attend if they had more information about programs and requirements well before senior years in high school. Participants in this study reinforced what Cabrera et al. (2005) found in their study; that a student's final stage of choice should actually be made much earlier to align for critical high school course trajectory that will determine their PSE pathway to college or university. As well, all participants indicated yes to the question that better relationships between First Nations and the institution would enable more students to succeed academically.

In addition, major findings from the research showed that demographically, more female, than male Indigenous students tend to enroll in degree studies. The female participants tended to be older (25-59 years) than traditionally aged students entering University. Participants were equal in term of marital status, with 50 percent being married and 50 percent being single/separated. A majority of the participants were in their third year of study and were planning on continuing on to the graduate level once they completed their undergrad.

Participants were represented across a wide variety of fields and disciplines of study including humanities, social work, sciences, engineering, commerce, nursing, education, environmental studies, and social science programs. Some of the participants responded that they were already at the graduate level in a Masters and/or PhD program. Although many of the participants answered that they had graduated from high school, they also indicated that they attended college before transferring to the University.

Furthermore, the findings revealed that students had a lack of knowledge about the campus in general and did not know about Indigenous specific resources available to them. Moreover, a majority of the students did not take a campus tour prior to attending. While students noted that the biggest barriers to attending Laurentian were financial, lack of information, distance, and family responsibilities, students also responded that racism is still a barrier. Concerning racism as an ongoing barrier, Cote-Meek (2014) found that Indigenous experience in the classroom “that the primary negotiation the students were confronted with was racism” (p. 100) and Bailey (2016) agrees that “subtle modern racism is playing a role in the daily lives of Indigenous university students, affecting both their academic and personal success” (p.1262). This study revealed that there is a shift occurring where some participants indicated that they were not the first in their families to attend post-secondary, but the majority of the participants did indicate that they were First-Generation in their families to attend university. That being said, It is also evident from the research that although half of the Indigenous participants are still enrolled straight from secondary school, the other half are navigating multiple pathways to get into Laurentian.

The qualitative data revealed that participants struggle with navigating the university academic environment and personal challenges associated with trying to balance school, family

responsibilities, and culture. Some participants noted distance from their home community to university as challenging. Moreover, participants found strength to find their voice and become more resilient and more determined to persevere in their studies. Finally, participants indicated that their program choice was overwhelmingly linked to strengthening their cultural identity and to helping strengthen their community. I believe that my study found that the timing, type and amount of information that Northern Rural Indigenous students receive should be disseminated much earlier. Students who did persevere and enrolled at Laurentian, did so either without all the correct (high stakes) information, received the information later in high school, or while attending college (transfer), or did not receive the right amount of information.

Revisiting the thesis question:



Figure 24 restatement of thesis question

The answer is yes!

The autumn seed is no longer hiding under the snow and Indigenous students are looking for ways to decolonize themselves and help their communities by way of pursuing post-secondary education. I think that closing the education gap between Indigenous and non-

Indigenous students is paramount to achieving the goal of self-determination. But for the autumn seed (the student) to flourish, it needs to have the right environment (information) in which to grow. Indigenous students need the correct pertinent high stakes PSE information at the right time and institutions, I think, have a vital role in making sure that rural Indigenous students are well informed about their 'choices' early.

The educational attainment gap between Indigenous and non-Indigenous university students is not closing. Even with a great number of educational programs and incentives, statistics are not changing, as much as we see improvement in PSE attainment for Indigenous students we also see the simultaneous rise in educational attainment for non-Indigenous PSE university students. Therefore, I think my study is important in highlighting another possible area to look at regarding closing the gap. I believe that my study highlights the need for universities to continue to recruit college students who want to continue their studies at a degree level, but I also feel that my study highlights that the university could be developing and continuing relationships with local Indigenous communities and engaging potential students starting in elementary. Institutions need to look at more innovative ways to recruit and target a younger population. Participants from this study indicated that the internet was their avenue of obtaining information before making their PSE choice. Universities could start being more proactive in creating meaningful relationships with local Indigenous communities and these relationships need to start much earlier than simple recruitment in grades 11 and 12. If we go back to what the literature tells us, students have already decided about PSE before they enter secondary school, and therefore post-secondary recruitment efforts need to address this. Indigenous students need to be presented with high stakes information early, so that they can make PSE choices knowing that these choices that will impact their labour participation later.

CHAPTER 5

Conclusion

First, let me just say Miigwetch to the students that have persisted to be university students. These students have overcome cultural, personal, professional and educational barriers to attend Laurentian. These students offer the view that not enough is being done to inform Indigenous students about the PSE options earlier. These participants, have both quantitatively and qualitatively, painted a picture of their resiliency and persistency in overcoming many hurdles to pursue a university education.

Second, the qualitative data gave the participants an opportunity to have a voice and share their experiences regarding their strengths and barriers on their educational pathway. Participants were able to relay their stories about the need to continue their PSE education for a variety of reasons, including motivation linked to career advancement and to improving their communities, as well as environmental sustainability.

In conclusion, there needs to be a more proactive approach towards ensuring students, particularly, Indigenous students in Northern Ontario, receive information earlier regarding making a PSE choice. According to the literature, Indigenous students do not, and have not received the same information regarding PSE as non-Indigenous students. Laurentian might benefit from a more proactive approach in their recruitment of future Indigenous students because high stakes and pertinent information could lead to a greater number of students attending and successfully completing university studies. It is critical that the timing, type and amount of information regarding PSE choices for Indigenous students in Northern Ontario is received earlier, if we are to expect the educational gap between Indigenous and non-Indigenous students in Ontario and in Canada to close. So far, many government programs and initiatives

have been implemented without much success. If we are serious about helping to close the educational gap that exist for Indigenous students regardless of these findings, the institutions need to be more ardent in formulating respectful and genuine relationships with the First Nation communities to ensure timing and type of information fostered early to recruit potential students.

Finally, as an Indigenous Learning Strategist and as a researcher, my passion is to help Indigenous students articulate their academic strengths and overcome academic challenges while at university. As some participants stated the benefits of university life include becoming confident in finding and utilizing their voice to become the change makers and role models who will pave the way for future generations. Through this research, it is my hope that by planting university information seeds earlier, that Indigenous students will envision pursuing a university degree as a natural option.

Limitations

There is the potential for there to be a survivor bias within my research. Students who participated in the research had already successfully navigated a pathway that led them to university where they were currently enrolled. The survivor bias focused on those that were successful in the university selection process and overlooked those that were not successful entering the university or who were early leavers. The REDCap questionnaire was not completed by anyone who did not successfully navigate the path to Laurentian.

Although my research sought to explore the experiences of Indigenous students enrolled in a variety of undergraduate and graduate programs at Laurentian University, future research might entail surveying students in grades 6 through 12, to examine further the type and amount of information they have about PSE. As well, more research could also look at those who were

successful entering the university, but were early leavers, or did not complete through to graduation.

Implication for policy practice

The intent of the research was to collect quantitative information on current Indigenous students enrolled at Laurentian University. The information was used to look at their pathway to Laurentian, specifically regarding the timing, type and amount of information they received prior to enrollment. Furthermore, the qualitative questions identified student's strengths and barriers prior to and after enrollment. It is hoped that the information that I gathered from this research, could be used to identify key themes pertinent to understanding how Indigenous students navigated their pathway or pathways and came to choose a PSE degree at Laurentian University. It is hoped that these themes may contribute to multiple strategies that can be used in my job, and be useful for liaison, recruitment persons, First Nation and Indigenous community counsellors. It is also my hope that the findings will evolve into my Ph.D.

Additionally, I aim to present a summary of the findings to students via presentations, on the Indigenous student Facebook site and at conferences. I also hope to use the findings to form an article for a journal.

Suggestions for further research

This research was a snapshot of a sense of the Indigenous student's journey to get to Laurentian and stay at Laurentian. Further research would call for widening the lens to look at

regional or national commonalities pathways of Indigenous students who pursue university studies.

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Appendices

Appendix A- Letter of Information

Letter of Invitation,

*Planting the Seeds: Envisioning an Academic Pathway for First Nation, Métis, and Inuit
Students in Rural Northern Ontario*

Aanii, Bonjour, Hello,

My name is Rena Daviau and I am a Master of Indigenous Relations student through the School of Indigenous Relations here at Laurentian University.

The purpose of the research is to gather student pathway information about the strengths and barriers of First Nation, Métis, and Inuit students currently enrolled at Laurentian University. The information gathered will be utilized to inform the university community about these strengths and barriers, as well as guide earlier outreach to future First Nation, Métis and Inuit students from rural Northern, Ontario about information regarding future post-secondary education goals and aspirations.

I am seeking participants who identify, or self-identify as First Nation, Métis, and Inuit who are currently enrolled as full or part-time students (undergraduate or graduate) at Laurentian University. Participants will be asked to complete a REDCap questionnaire online through Laurentian website LUNET with their Laurentian username and password. Participant's identities will remain anonymous through encryption software. The online survey should take between 15-20 minutes to complete.

Your participation is entirely voluntary and you have the right to withdraw from the study at any point without consequence. If at any time, you choose to not to continue your participation or to withdraw from the questionnaire, this will not affect your status as a student in any way. In case of anxiety or emotional distress, counselling resources at Aboriginal Students Affairs or Laurentian Counselling & Support Services will be available if needed. Individuals should feel safe and comfortable during the research process. I look forward to your participation and sharing of information regarding your educational pathways knowledge journey thus far. The information about your post-secondary studies strengths and barriers will help to guide the future successes of First Nation, Métis, and Inuit students in rural Northern Ontario.

If you have any question or concerns regarding ethical or research matters, you may also contact the **Research Ethics Office, Laurentian University Research Office by telephone: 705-675-1151 ext. 3213, 2436 or toll free at 1-800-461-4030 or by email ethics@laurentian.ca**

Thank you for your time and consideration,

Rena Daviau, B.A. (English), B.A. (History), B.A. (Religious Studies), B. Ed. (Primary, Junior/Intermediate, Senior), O.C.T., M.I.R. (candidate), rdaviau@laurentian.ca, 705-675-1151 ext. 3057

Appendix B- Approval for Conducting Research Involving Human Subjects



APPROVAL FOR CONDUCTING RESEARCH INVOLVING HUMAN SUBJECTS Research Ethics Board – Laurentian University

This letter confirms that the research project identified below has successfully passed the ethics review by the Laurentian University Research Ethics Board (REB). Your ethics approval date, other milestone dates, and any special conditions for your project are indicated below.

TYPE OF APPROVAL / New X / Modifications to project / Time extension	
Name of Principal Investigator and school/department	Rena Daviau, supervisor Taima Moeke Pickering, School of Indigenous Relations
Title of Project	Planting the Seeds: Envisioning an Academic Future for First Nation, Métis, and Inuit Students in Rural Northern Ontario
REB file number	2016-03-01
Date of original approval of project	July 25, 2016
Date of approval of project modifications or extension (if applicable)	
Final/Interim report due on: (You may request an extension)	July 25, 2017
Conditions placed on project	

During the course of your research, no deviations from, or changes to, the protocol, recruitment or consent forms may be initiated without prior written approval from the REB. If you wish to modify your research project, please refer to the Research Ethics website to complete the appropriate REB form.

All projects must submit a report to REB at least once per year. If involvement with human participants continues for longer than one year (e.g. you have not completed the objectives of the study and have not yet terminated contact with the participants, except for feedback of final results to participants), you must request an extension using the appropriate LU REB form. In all cases, please ensure that your research complies with Tri-Council Policy Statement (TCPS). Also please quote your REB file number on all future correspondence with the REB office.

Congratulations and best wishes in conducting your research.

Rosanna Langer, PHD, Chair, *Laurentian University Research Ethics Board*

Appendix C- Copy of Online Consent for Questionnaire

Planting the Seeds: Envisioning an Academic Future for First Nation, Métis, and Inuit Students in Rural Northern Ontario

*** CONSENT FOR STUDIES CARRIED OUT OVER THE INTERNET**

The information gathered will be utilized to inform the university community about these strengths and barriers, as well as guide earlier outreach to future First Nation, Métis and Inuit student from rural Northern, Ontario about information regarding future post-secondary education goals and aspirations. The survey is confidential and your name will not be revealed at any time during the research process. Your username and password will also remain anonymous. Your participation is entirely voluntary and you have the right to withdraw from the study at any point without consequence. If at any time, you choose to not to continue your participation or to withdraw from the questionnaire, this will not affect your status as a student in any way. In case of anxiety or emotional distress, counselling resources are available at Aboriginal Students Affairs or Laurentian Counselling & Support Services will be available if needed. Individuals should feel safe and comfortable during the research process. Thank you for your participation.

1	<p>By agreeing to participate in this study, I acknowledge that I have read the attached information letter below.</p> <p>Information Letter, Planting the Seeds: Envisioning an Academic Future for First Nation, Métis, and Inuit Students in Rural Northern Ontario Aanii, Bonjour, Hello, my name is Rena Daviau and I am a Master of Indigenous Relations student through the School of Indigenous Relations here at Laurentian University. The purpose of the research is to gather student pathway information about the strengths and barriers of First Nation, Métis, and Inuit students currently enrolled at Laurentian University. The information gathered will be utilized to inform the university community about these strengths and barriers, as well as guide earlier outreach to future First Nation, Métis and Inuit students from rural Northern, Ontario about information regarding future post-secondary education goals and aspirations. I am seeking participants who identify, or self-identify as First Nation, Métis, and Inuit who are currently enrolled as full or part-time students (undergraduate or graduate) in any discipline at Laurentian University or with its affiliated partners of University of Sudbury, Thorneloe University, Huntington University as well as the Northern Ontario School of Medicine. Participants will be asked to complete a Redcap questionnaire online through Laurentian website LUNET with their Laurentian username and password. Participant's identities will remain anonymous through encryption software. The online survey should take between 15-20 minutes to complete. Your participation is entirely voluntary and you have the right to withdraw from the study at any point without consequence. If at any time you choose to not to continue your participation or to withdraw from the questionnaire, this will not affect your status as a student in any way and your information will not be used and will be deleted. I also work as the Indigenous Learning Strategist at Laurentian and your non-participation will not affect your access to my services. In case of anxiety or emotional distress, counselling resources at Indigenous Students Affairs or Laurentian Counselling & Support Services by calling (705) 673-6506 or by email at supportprograms@laurentian.ca. You may also contact Indigenous Student Affairs at 705-675-1151 ext. 4052 or by email at ISA@laurentian.ca Individuals should feel safe and comfortable during the research process. I look forward to your participation and sharing of information</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
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	<p>regarding your educational pathways knowledge journey thus far. The information about your post-secondary studies strengths and barriers will help to guide the future successes of First Nation, Métis, and Inuit students in rural Northern Ontario. Once the study is complete, there will be an open celebration to discuss the general findings. The date and time for the celebration will be posted on the ISA website as well as posted on the student bulletin board in the ISLC. Participants who do not wish to partake in the celebration will still be able to access a one page summary of the findings posted on the ISA website as well as the student bulletin board in ISCL. If you have any question or concerns regarding ethical or research matters, you may also contact the Research Ethics Office, Laurentian University Research Office by telephone: 705-675- 1151 ext. 3213, 2436 or toll free at 1-800-461-4030 or by email ethics@laurentian.ca My Thesis Supervisor: Dr. Taima Moeke-Pickering, 675-1151 ext. 5083 or by email at TMoekepickering@laurentian.ca Thank you for your time and consideration,</p> <p>Rena Daviau, B.A. (English), B.A. (History), B.A. (Religious Studies), B. Ed. (Primary, Junior/Intermediate, Senior), O.C.T., M.I.R. (candidate), rdaviau@laurentian.ca, 705-675-1151 ext. 3057</p>	
2)	How old are you?	<input type="checkbox"/> 15-18 <input type="checkbox"/> 19-24 <input type="checkbox"/> 25-35 <input type="checkbox"/> 36-45 <input type="checkbox"/> 46-59 <input type="checkbox"/> 60+
3)	Do you identify as First Nation, Métis, or Inuit?	<input type="checkbox"/> First Nation <input type="checkbox"/> Métis <input type="checkbox"/> Inuit
4)	Are you status or non-status?	<input type="checkbox"/> Status <input type="checkbox"/> non-Status
5)	What is your current year of study?	<input type="checkbox"/> First year (undergraduate) <input type="checkbox"/> Second year (undergraduate)

		<input type="checkbox"/> Third year (undergraduate) <input type="checkbox"/> Fourth year (undergraduate) <input type="checkbox"/> Masters <input type="checkbox"/> PhD
6)	What field are you enrolled in at Laurentian?	<input type="checkbox"/> Humanities (philosophy, english, indigenous studies...) <input type="checkbox"/> Social Science (psychology, sociology, anthropology...) <input type="checkbox"/> Science (biology, chemistry, mathematics...) <input type="checkbox"/> Engineering <input type="checkbox"/> Architecture <input type="checkbox"/> Commerce <input type="checkbox"/> Social Work (Indigenous) <input type="checkbox"/> Other
7)	What is your marital status?	<input type="checkbox"/> Single <input type="checkbox"/> Married/Common Law <input type="checkbox"/> Separated <input type="checkbox"/> Divorced <input type="checkbox"/> Widowed <input type="checkbox"/> Other
8)	What is your gender?	
9)	What best describes your family income?	<input type="checkbox"/> Less than \$10,000 <input type="checkbox"/> \$10,000 to under \$20,000 <input type="checkbox"/> \$20,000 to under \$35,000 <input type="checkbox"/> \$35,000 to under \$50,000 <input type="checkbox"/> \$50,000 to under \$75,000 <input type="checkbox"/> \$75,000 to under \$100,000 <input type="checkbox"/> \$100,00 to under \$150,000 <input type="checkbox"/> \$150,000 +
10)	How are you financing your education? (click all that apply)	<input type="checkbox"/> Band Funded <input type="checkbox"/> Government Loans <input type="checkbox"/> Bank Loans

		<input type="checkbox"/> Bursaries and Scholarships? <input type="checkbox"/> Working (Full-time) <input type="checkbox"/> Working (Part-time) <input type="checkbox"/> Other
11)	Are you enrolled in full-time studies or part-time studies?	<input type="checkbox"/> 100% course load (5 courses per semester) <input type="checkbox"/> 80% course load (4 courses per semester) <input type="checkbox"/> 60% course load (3 courses per semester) <input type="checkbox"/> Under 60% course load (under 3 courses per semester)
12)	Are you taking on-campus courses or distance education courses? Or a combination of both?	<input type="checkbox"/> On campus <input type="checkbox"/> Distance <input type="checkbox"/> Combination of on campus and distance courses
13)	Did you graduate high school, G.E.D., transition program, mature students or college transfer?	<input type="checkbox"/> High school diploma <input type="checkbox"/> G.E.D. (General Education Diploma) <input type="checkbox"/> Transition program <input type="checkbox"/> Mature student <input type="checkbox"/> College transfer
14)	In high school, did you take the applied stream or the academic stream?	<input type="checkbox"/> Applied stream (College) <input type="checkbox"/> Academic stream (University) <input type="checkbox"/> Alternative
15)	Is your home community located within Northern Ontario?	<input type="checkbox"/> Yes <input type="checkbox"/> No
16)	What best describes the population of the town or city where you attended high school?	<input type="checkbox"/> 1. 0-999 population <input type="checkbox"/> 2. 1,000-4,999 population

		<input type="checkbox"/> 3. 5,000-9,999 population <input type="checkbox"/> 4. 10,000-49,999 population <input type="checkbox"/> 5. 50,000-99,999 population <input type="checkbox"/> 6. 100,000+ population <input type="checkbox"/> I am not sure
17)	Were you aware of Laurentian University and it's Sudbury campus in high school?	<input type="checkbox"/> Yes <input type="checkbox"/> No
18)	Did you know about the campus services available to First Nations, Métis and Inuit students before enrolling in your studies (elders, learning strategist, counsellor, and Métis coordinator)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
19)	Did you take a campus visit/tour prior to enrolment?	<input type="checkbox"/> Yes <input type="checkbox"/> No
20)	Did you relocate to Sudbury, Ontario to attend Laurentian University?	<input type="checkbox"/> Yes <input type="checkbox"/> No
21)	What is the highest level of education that your parents/legal guardians received?	<input type="checkbox"/> less than grade 8 <input type="checkbox"/> less than grade 12 <input type="checkbox"/> completed high school <input type="checkbox"/> some college/university <input type="checkbox"/> completed college <input type="checkbox"/> completed university <input type="checkbox"/> completed graduate studies (MA, PhD...) <input type="checkbox"/> I do not know
22)	When did you decide that you wanted to attend post-secondary?	<input type="checkbox"/> Under grade 6 <input type="checkbox"/> Grades 6-8 <input type="checkbox"/> Grades 9-10 <input type="checkbox"/> Grades 11-12 <input type="checkbox"/> After high school <input type="checkbox"/> College
23)	What was your greatest motivation(s) for attending Laurentian University? (i.e. family member who pursued higher education, to get a good job, to help	

	my community, to be a role model)	
24)	What were your biggest barriers to attending Laurentian University? (select all that apply)	<input type="checkbox"/> Lack of Information <input type="checkbox"/> Distance <input type="checkbox"/> Financial <input type="checkbox"/> Educational attainment <input type="checkbox"/> Family responsibilities <input type="checkbox"/> Racism <input type="checkbox"/> Daycare services
25)	What personal strength(s) did you discover about yourself while attending university? (i.e. resilience, perseverance, overcoming adversity, leadership)	
26)	What has been your biggest challenge at university so far?	
27)	How did you receive information about the program that you are enrolled in at Laurentian University? (choose all that apply)	<input type="checkbox"/> Teacher <input type="checkbox"/> Guidance Counsellor <input type="checkbox"/> Parent/Family <input type="checkbox"/> Friend <input type="checkbox"/> Internet <input type="checkbox"/> Community member <input type="checkbox"/> University Recruiter <input type="checkbox"/> Other
28)	Are you the first person in your family to attend University?	<input type="checkbox"/> Yes <input type="checkbox"/> No
29)	Once you graduate your current degree, what do your future goals include?	<input type="checkbox"/> Work <input type="checkbox"/> Further undergraduate studies (second degree, fourth year honours...) <input type="checkbox"/> Graduate Studies (Masters/PhD)
30)	Did you ever delay post-secondary studies for any of the following reasons?:	<input type="checkbox"/> lack of information <input type="checkbox"/> low grades <input type="checkbox"/> family circumstances <input type="checkbox"/> financial barriers <input type="checkbox"/> distance to the institution

		<input type="checkbox"/> Other
31)	Do you think that more First Nation, Métis, and Inuit students would attend post-secondary if they more information about the institution and the programs earlier than senior year in high school?	<input type="checkbox"/> Yes <input type="checkbox"/> No
32)	Why did you choose the program that you are currently enrolled in?	
33)	Were you aware of admission standards (grades/course requirements) to your program early in high school?	<input type="checkbox"/> I was aware <input type="checkbox"/> I was not aware
34)	Do you have community and/or family support while at university?	<input type="checkbox"/> Yes <input type="checkbox"/> No
35)	Do you feel that you had all the necessary information coming to post-secondary studies at Laurentian or do you feel that you learned more information once you started your studies?	<input type="checkbox"/> I had all the information I needed <input type="checkbox"/> I received important information at Laurentian
36)	Which of the following skills do you feel needed more development before you entered University?	<input type="checkbox"/> Time Management Skills <input type="checkbox"/> Organizational Skills <input type="checkbox"/> Literacy/Writing Skills <input type="checkbox"/> Mathematic Skills <input type="checkbox"/> Critical Thinking <input type="checkbox"/> Computer Skills
37)	Thinking about your education pathway, do you think that you would have benefitted from access to more information about post-secondary education earlier?	<input type="checkbox"/> Yes <input type="checkbox"/> No
38)	Would you say that First Nations, Métis and Inuit students would be more likely to attend Post-secondary education if the community and institutions had earlier (grades 6, 7 and 8) outreach programs?	<input type="checkbox"/> Yes <input type="checkbox"/> No
39)	Do you think that if Laurentian University and First Nations, Métis and Inuit communities had improved	<input type="checkbox"/> Yes <input type="checkbox"/> No

	connections, this would enable more students to successfully complete their studies?	
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